

BRACEWELL

March 23, 2018

BY E-MAIL

Ms. Kristin Baldwin
Presiding Official, Pipeline Safety Law Division
Department of Transportation
Pipeline and Hazardous Materials Safety Administration
1200 New Jersey Avenue, SE
Washington, DC 20590

Re: Submission of Hearing Transcript Containing Critical Energy/Electric Infrastructure
Information, Confidential Business Information, and Confidential Information
In the Matter of Sabine Pass Liquefaction, LLC
CPF No. 4-2018-3001H

Dear Ms. Baldwin:

Please find enclosed a transcript of the March 21, 2018 hearing on the above referenced Corrective Action Order. The enclosed transcript is unredacted and contains Critical Energy/Electric Infrastructure Information, Confidential Business Information, and confidential information. Per 49 C.F.R. §190.343(a), Sabine Pass Liquefaction, LLC formally requests the protection of this information. Each page of the document is marked "confidential."

49 C.F.R. § 190.343(a)(3) requires an operator to explain the basis for treating submitted information as confidential. The enclosed transcript contains Critical Energy/Electric Infrastructure Information, Confidential Business Information, and confidential information because it transcribes hearing discussion related to detailed design schematics, proprietary analysis and procedures, and specific vulnerabilities related to critical infrastructure. Accordingly, Sabine Pass requests that PHMSA treat this information as confidential as described in § 190.343(b), including following the consultation procedures set out in the Departmental FOIA regulations, 49 CFR § 7.29, and providing written notification at least five business days before the intended disclosure date if PHMSA decides to disclose the information over our objections.

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AUSTIN CONNECTICUT DALLAS DUBAI HOUSTON LONDON NEW YORK SAN ANTONIO SEATTLE WASHINGTON, DC

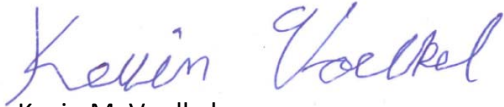
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Section 190.343(a)(2) requests the submission of a second, redacted copy of the transcript. Due to the expedited turnaround time for this transcript, the redacted version has not yet been prepared. We will prepare a redacted version and will submit that to you early next week.

Very truly yours,



Kevin M. Voelkel
Counsel for Cheniere Energy, Inc.

Enclosure

AUSTIN CONNECTICUT DALLAS DUBAI HOUSTON LONDON NEW YORK SAN ANTONIO SEATTLE WASHINGTON, DC

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BEFORE THE
U.S. DEPARTMENT OF TRANSPORTATION
PIPELINE AND HAZARDOUS MATERIALS SAFETY ADMINISTRATION
OFFICE OF PIPELINE SAFETY

In the Matter of)
) CPF NO. 4-2018-3001H
SABINE PASS LIQUEFACTION,)
LLC)

TRANSCRIPT OF CORRECTIVE ACTION ORDER HEARING

MARCH 21, 2018

BE IT KNOWN THAT the above-entitled matter came on for hearing at 9:05 a.m. on the 21st day of March, 2018, at the PHMSA Southwest Region Office, 8701 South Gessner Road, Sixth Floor, Houston, Texas, before the Presiding Official Kristin Baldwin, and the following proceedings were reported by Diana Ramos, a Certified Shorthand Reporter in and for the State of Texas.

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A P P E A R A N C E S

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Ms. Linda Daugherty, Deputy Associate Administrator
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Ms. Mary McDaniel, Southwest Region Director, PHMSA

Mr. Peter J. Katchmar, Director, Accident
Investigation Division, PHMSA

Mr. Darren Lemmerman, Investigator, Accident
Investigation Division, PHMSA

Mr. James M. Prothro, II, Community Liaison,
Outreach and Engagement Division, PHMSA

Ms. Julie Halliday, Senior Accident Investigator,
Accident Investigation Division, PHMSA (VIA TELEPHONE)

Ms. Senth White, Engineer & Research Division,
PHMSA (VIA TELEPHONE)

Mr. Joe Sieve, Engineer & Research Division, PHMSA
(VIA TELEPHONE)

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Mr. Paul Nielson, Manager, Regulatory Affairs,
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Mr. Maas Hinz, Maintenance Manager, Sabine Pass
Facility

Mr. Layne Boudreaux, Production Superintendent,
Sabine Pass Facility

Mr. Joseph Hoptay, Plate and Concrete Structures
Engineering Supervisor, Matrix Engineering

Mr. Paul Sullivan, Consultant and Tank Code Expert,
Paul Sullivan, Ing.

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1 Mr. Terry A. Gallagher, Commissioning Manager, Low
2 Temperature & Cryogenic Storage Structures, Steel Plate
Structures, Chicago Bridge & Iron Company

3 Mr. Mark J. Bartel, PE, Staff Metallurgist, Stress
4 Engineering Services, Inc.

5 Ms. Nishita Singh, Manager, Systems, Processes &
Operational Assurance, Cheniere

6 U.S. COAST GUARD:

7 Commander Loan O'Brien

8 Lieutenant Commander Dallas Smith

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P R O C E E D I N G S

(9:05 a.m.)

(Open to public)

MS. BALDWIN: Let's go ahead and get started. It is 10:05 (sic). So good morning, everyone. My name is Kristin Baldwin, and I will be the presiding official in the matter before us today.

This is a hearing in the matter of Sabine Pass Liquefaction. The CPF number for this case is 4-2018-3001H. On February 8th, 2018, the Pipeline and Hazardous Materials Administration issued a corrective action order to Sabine Pass Liquefaction, LLC.

Sabine Pass made a timely request for a hearing on February 16th, 2018. The parties jointly agreed to hold a hearing on March 21st, 2018. This hearing is authorized by 49 CFR Part 190 and will be conducted informally without strict adherence to rules of evidence.

As the presiding official, I will regulate the course of the hearing and afford each party an opportunity to offer facts, statements, and witnesses or any other evidence that is relevant to the issues under consideration here. The parties may call witnesses on their own behalf and examine the evidence and witnesses

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1 presented by the other party.

2 After the evidence in this case has been
3 presented, I will permit a reasonable discussion of the
4 issues under consideration. I ask that only one person
5 speak at a time, both in order to promote civil
6 discourse and also to allow our court reporter to record
7 everything. So if you are having difficulty, please let
8 us know and we'll calm things down.

9 Because of the number of people here
10 today, I will ask that if you're not at the table and
11 speaking that you either come to the table or stand up
12 and identify yourself before speaking.

13 I will be taking notes during the hearing.
14 These are for my personal use only and will not be made
15 part of the record. This hearing is being transcribed,
16 as I've noted, so please take care to speak clearly. No
17 other recordings here are permissible either by phone,
18 video, however.

19 At the conclusion of the hearing, I will
20 set a timeframe for post-hearing submissions. After the
21 case file is complete, as you know, I will prepare a
22 recommended decision, which is then forwarded to the
23 associate administrator for issuance. Because this is a
24 CAO hearing, my decision will be submitted to the AA
25 within five business days following -- at the conclusion

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1 of this hearing. You can refer to 190.233(c) for that.
2 We'll discuss post-hearing submissions afterwards and
3 how we'll handle that with respect to the timeframes
4 here.

5 I would be remiss if I did not acknowledge
6 the presence of the public in this room. So in response
7 to a request from the media to attend this hearing,
8 PHMSA has decided, for purposes of this hearing, to open
9 the hearing to the press and to members of the public,
10 so I would like to discuss the parameters of the
11 public's attendance here today.

12 As the presiding official under 49 CFR
13 Part 192.12, I have brought authority both to ensure a
14 fair and impartial hearing as well as to take any action
15 necessary to avoid a delay in the disposition of this
16 hearing and maintain order.

17 The only people allowed to speak in the
18 hearing today are myself, Cheniere and its
19 representatives, and OPS staff. I will not entertain
20 any motions from the public or provide any documents or
21 other materials. Those may be requested from PHMSA or
22 from Cheniere in the normal course of business, and I
23 will be happy to provide those details following the
24 hearing.

25 PHMSA treats certain information

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1 confidentially, namely confidential commercial
2 information, also sometimes called confidential business
3 information. In addition, there may be some information
4 presented here today that raise security concerns.
5 Accordingly, there may be portions of the hearing that
6 will be closed to the public. If I receive a request
7 from Cheniere or OPS to close the hearing on that basis,
8 I will ask all members of the public to adjourn to a
9 dedicated space until such time that it becomes
10 appropriate to reopen the proceedings. If and when it
11 is appropriate and confidential or sensitive information
12 is not discussed, I will reopen the proceedings.

13 So I would like to emphasize that the
14 purpose of this hearing is to have a full and fair
15 vetting of the issues in this case. Given my authority
16 in Part 190 to regulate the conduct of this hearing, I
17 will ultimately conduct this hearing so as to avoid
18 delay in the disposition of the hearing and maintain
19 order.

20 I know everyone signed in already coming
21 into the room, and there has also been a -- we have an
22 idea of who's in the room now, but I would like anyone
23 that has not signed in to do so on this. This pad, if
24 we could just get you to pass it to --

25 MR. PHILLIPS: Ms. Baldwin --

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1 MS. BALDWIN: Yes.

2 MR. PHILLIPS: -- just for the record, we
3 have Julie on the phone. We're down --

4 MS. BALDWIN: Okay.

5 MR. PHILLIPS: We're still trying to get
6 her on the line but --

7 MS. BALDWIN: So that is Julie Halliday.
8 She is also with DOT.

9 I anticipate that we'll take a short break
10 from 10:45 to 11:00 o'clock. After that, we will
11 proceed until 12:00 or 12:30, sort of depending on the
12 pace of the hearing, and then I'll allot one hour for
13 lunch and we'll assume thereafter. I would like for us
14 to minimize going in and out of the room so that
15 everybody is familiar with who is actually here. So I
16 would schedule in breaks to allow for people's needs to
17 move in and out of the room.

18 So I thank everyone in advance for their
19 cooperation here today. And I'll now turn to Linda
20 Daugherty to give us some safety instructions.

21 MS. DAUGHERTY: Good morning, everybody.
22 So at the beginning of every meeting, we cover basic
23 safety provisions. This is just a standard. I'm sure
24 you're familiar with it.

25 So first point of order --

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1 (Phone beeping)

2 MS. DAUGHERTY: First point of order.

3 Restrooms are out the door where you came in, so it's
4 back through this rear door immediately to your left
5 out. Men is the first left and women's on the second
6 left. That's the restrooms.

7 If you have to come in, to get back in,
8 you're going to have to have someone from PHMSA allow
9 you in with a code. And I believe that -- James, will
10 you serve as an escort --

11 MR. PROTHRO: Yes, ma'am.

12 MS. DAUGHERTY: -- if people need to get
13 out and in?

14 MR. PROTHRO: Yes, ma'am.

15 MS. DAUGHERTY: So James, everybody can
16 see who he is. Okay. So that's restrooms.

17 For a rally point, if we should have an
18 emergency in the building, we will exit through this
19 door. You'll go through our office door, which is an
20 immediate left, and you will then take another immediate
21 left down the stairs. You will go down to the first
22 floor and go to the right to the end of the street. Our
23 rally point's at the end of the street. Okay?

24 So we have an AED in our breakroom, which
25 is through -- it's through the office building

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1 around the -- how would you describe, the best way?

2 MS. McDANIEL: Down around the corner to
3 the left.

4 MS. DAUGHERTY: Okay. Anybody in here
5 certified to use an AED?

6 Okay. So I'm going to -- I'm going to
7 ask, James, if we have a need of the AED, will you --
8 will you obtain it and assist?

9 MR. PROTHRO: Yes.

10 MS. DAUGHERTY: Anybody here certified in
11 CPR?

12 Okay. I'm going to ask the gentleman in
13 the back that raised your hand, would you take the lead
14 on any CPR that is needed?

15 Also, I need someone to dial 9-1-1 in the
16 case of emergency. I want a designated individual.

17 MS. McDANIEL: I'll do it.

18 MS. DAUGHERTY: Mary. Well, I guess you
19 should, shouldn't you?

20 Okay. In the case of a active shooter in
21 the building, remember that you run, hide, fight.
22 There's provisions here. Obviously we would lock the
23 door, stay in the locked area, and follow the general --
24 the general rules. I think you all are -- probably
25 everyone in here has had that training, so we're good

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1 for that.

2 The other thing I will mention, I am here
3 in more of an observer status. I am not here -- the
4 team -- PHMSA is here to represent the actual position
5 of the program in the course of the discussion. So any
6 appeals or discussions should be directed to the hearing
7 official, Mary or Adam.

8 MS. STEVENS: Sorry about that.

9 MS. DAUGHERTY: Oh, one last item, break
10 time. I already have my caffeine, but I suspect others
11 may want some. There is a gift store, a little tiny
12 shop down on the first floor. As you walk through that
13 hallway, you can go down there at a break and grab
14 something to drink, a beverage.

15 Do they have coffee down there, Mary?

16 MS. McDANIEL: Yes, there's coffee.

17 MS. DAUGHERTY: Okay. So that is where
18 your vantage point will be.

19 Any questions related to safety, security
20 or convenience?

21 No. Okay. Great. Back to you.

22 MS. BALDWIN: Okay. So --

23 MS. McDANIEL: Here's the official
24 sign-in.

25 MS. BALDWIN: Thank you.

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1 So we'll begin with a round of
2 introductions just at the table so the parties can
3 familiarize themselves with each other. So just please
4 include your name and your title just for everyone's
5 reference.

6 For Sabine Pass, any witnesses that you
7 anticipate actually speaking, it will probably be a good
8 idea for you to introduce them now, too.

9 So I will start. I'm Kristin Baldwin. I
10 am the presiding official today.

11 MS. DAUGHERTY: Linda Daugherty. I'm the
12 deputy associate administrator for PHMSA for pipeline.

13 MS. McDANIEL: I'm Mary McDaniel, the
14 Southwest Region director.

15 MR. PHILLIPS: Adam Phillips, Southwest
16 Region attorney, Office of the Chief Counsel for PHMSA.

17 MS. STEVENS: Melanie Stevens, attorney
18 with Office of Chief Counsel, Pipeline Safety.

19 MR. KATCHMAR: Peter Katchmar, the
20 director of the Accident Investigation Division of
21 PHMSA.

22 MR. LEMMERMAN: Darren Lemmerman, AID
23 investigator.

24 MS. SINGH: Nishita Singh, Cheniere.

25 MS. KARAUS: I'm Bryn Karaus, associate

1 with Van Ness Feldman, outside counsel to Cheniere.

2 MR. VOELKEL: Kevin Voelkel, associate
3 with Bracewell, counsel for Cheniere.

4 MR. EWING: Good morning. I'm Kevin
5 Ewing. I'm with Bracewell, and I'm counsel for Sabine
6 Pass, Cheniere.

7 MR. MARKOWITZ: Sean Markowitz. I'm the
8 general counsel and corporate secretary of Cheniere.

9 MR. SHANDA: Good morning. I'm Doug
10 Shanda. I'm senior vice president of operations with
11 Cheniere.

12 MR. WELLER: Good morning. Mike Weller,
13 senior counsel, Cheniere.

14 MR. EWING: And if you'd like the
15 witnesses who I anticipate will speak, I'd be happy to
16 introduce them now --

17 MS. BALDWIN: That would be nice.

18 MR. EWING: -- and then more fully with
19 their background later.

20 MS. BALDWIN: I appreciate that.

21 MR. EWING: Can we do that?

22 MS. BALDWIN: Yes.

23 MR. EWING: I'm looking at you, but don't
24 worry. So Paul Sullivan, expert on a variety of matters
25 related to safety. As I said, a more full description

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1 later.

2 This is Paul Nielson. Paul Nielson is
3 with Cheniere. And I'm going to ask Paul to introduce
4 the other members of the group here.

5 MR. NIELSON: Good morning. I'm Paul
6 Nielson. I'm manager for regulatory affairs at
7 Cheniere.

8 MS. BALDWIN: Okay.

9 MR. NIELSON: I'll start with Layne
10 Boudreaux, who is production superintendent, Sabine Pass
11 facility. Mr. Maas Hinz, who is the maintenance manager
12 of the Sabine Pass facility. Terry Gallagher, from CBI,
13 who is one of our tank experts. We've got Joe Hoptay
14 from Matrix Engineering, who is another tank expert.

15 We've got Mark Bartel, from Stress
16 Engineering, who's an expert in metallurgy. And I have
17 Paul Sullivan, who is another tank expert and
18 consultant.

19 MR. SULLIVAN: Doubly introduced.

20 MR. NIELSON: Yes, that's again. Okay.

21 MR. PHILLIPS: Doubly important.

22 MS. BALDWIN: So you said what individuals
23 from CTI? Was it CTI?

24 MR. WELLER: CBI.

25 MS. BALDWIN: CDI. That --

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1 MR. EWING: CB&I.

2 MS. BALDWIN: CD&I. And that is?

3 MR. GALLAGHER: Chicago Bridge & Iron.

4 MS. BALDWIN: Okay. So routinely I turn
5 to the Region first for a presentation of the case, and
6 then I will turn to Cheniere to begin its case in chief.
7 So I'm going to just turn to Mary McDaniel at this time.

8 MS. McDANIEL: Good morning, everybody. I
9 wanted to give a little background on the date of the
10 incident we had on January 22nd, and as a result PHMSA
11 staff conducted an incident investigation. So members
12 from our Accident Investigation Division in Oklahoma
13 City sent representatives to investigate and the
14 Southwest Region had one person attend with them to
15 investigate the incident.

16 Based off the findings of the events that
17 were taking place, the Accident Investigation Division
18 recommended that a corrective action order be issued on
19 this case regarding their initial findings. So on
20 February 8th, the CAO was issued from PHMSA staff, the
21 Region director here.

22 So at the time -- I started with PHMSA at
23 the -- February the 20th of this year, so I am
24 responsible now for the findings and the implementation
25 of the CAO. And so our staff is doing that in

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1 conjunction with the Accident Investigation Division.
2 But, as Kristin mentioned, a request for hearing was
3 issued -- was requested on February 16th within the
4 10-day timeframe, which has led us to this point.

5 PHMSA generally issues corrective action
6 orders without hearing for those that we felt that there
7 was an imminent threat. Based off the initial
8 investigation, our Accident Investigation Division,
9 along with the Southwest Region, felt that a CAO was
10 warranted, and so it was issued on February 8th.

11 So I guess that's a little background on
12 the issuance of the CAO. And so based off that, I
13 believe Adam will talk a little bit about some of the
14 information in the preparation of the CAO.

15 MR. PHILLIPS: Yeah. And don't let Mary
16 kid you. She restarted with PHMSA. She's been
17 here for --

18 MS. McDANIEL: Yes. I'm sorry. I --

19 MR. PHILLIPS: And I'm sure you know that.
20 Just to check, Julie, are you on the line?
21 Is that you who just came on?

22 MS. HALLIDAY: Yes, Adam, I am.

23 MR. PHILLIPS: Okay. Great. I just
24 wanted to confirm that. Okay.

25 MR. EWING: Will we --

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1 MR. PHILLIPS: Sorry.

2 MR. EWING: Sorry. Will we introduce
3 who's on the line? Is that possible?

4 MS. BALDWIN: Oh, I am --

5 MR. PHILLIPS: Yeah.

6 MS. BALDWIN: My apologies.

7 MR. EWING: I apologize, Adam.

8 MR. PHILLIPS: No problem.

9 MS. BALDWIN: Can we -- Julie, now that
10 you have -- we already know that Joe Sieve and Senth
11 White are on the line, but can you introduce yourself,
12 please, and just give us your title?

13 MS. HALLIDAY: Sure. I'm senior accident
14 investigator with the Accident Investigation Division
15 from -- out of Oklahoma City.

16 MS. BALDWIN: So there are just three
17 people on the line, is that correct, you, Senth
18 Joe?

19 MS. HALLIDAY: That I'm aware of, yes.

20 MS. WHITE: Yes.

21 MS. BALDWIN: Okay.

22 MR. PHILLIPS: Great. Thank you.

23 MS. McDANIEL: And Julie was one of the
24 incident investigators on site.

25 MR. PHILLIPS: Right, yeah. I wanted to

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1 make sure Julie was on, because we'll talk to Julie in a
2 little while. But thank you all for the time.
3 Appreciate, you know, the opportunity to sort of discuss
4 the CAO -- this specific CAO.

5 We -- you know, obviously what we put out
6 into the record on February the 8th is out there. I
7 just wanted to give a little bit of background: One, on
8 the question of, you know, what this hearing is going to
9 be about based on sort of how PHMSA typically approaches
10 hearings and CAO's where there hasn't been notice; two,
11 a little bit about the background of LNG because, you
12 know, obviously the Sabine Pass facility is -- it's
13 not -- it's a facility that's unique in some ways and we
14 think is -- you know, when we approached this facility
15 specifically with any kind of interaction, I mean,
16 typically we've had great interactions with Sabine and
17 will continue to, I assume, but it is a unique facility,
18 so there are some specific issues related to LNG that
19 obviously come into play here. And then I want to talk
20 a little bit, you know, about the -- the specific CAO we
21 have on hand.

22 So the standard for review in this case in
23 the matter of Chaparral Energy -- I'll give this to the
24 record as well so that we all have a copy of this. I'm
25 just going to -- I'm just going to be sort of

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1 referencing it at this point, but I will put it in the
2 record.

3 It's a 2015 case, standards for review of
4 issuance of a corrective action order of specifically
5 this type, but we put out a CAO without notice. I just
6 wanted to read a little bit. Primary purpose of a
7 hearing following issuance of a --

8 MS. BALDWIN: Sorry. Can you read the CPF
9 number, please?

10 MR. PHILLIPS: I absolutely can. Yeah.
11 Let me see here. 4-2015-5017H -- 5017H.

12 MS. BALDWIN: Thank you.

13 MR. PHILLIPS: Okay. Now, this case
14 specifically is dated October 8th, 2015. It's a
15 post-hearing decision specifically coming from PHMSA.
16 So our purpose -- primary purpose of the hearing
17 following the issuance of a CAO without prior notice is
18 to determine whether the CAO should remain in effect or
19 be terminated or amended.

20 So obviously, you know, what we have to
21 decide in the room today is from January the 22nd until
22 the issuance of the CAO, were -- was our action of
23 issuing the CAO on February the 8th justified? Once we
24 do that, you know, there's a question -- obviously
25 that's sort of the question of termination. Then

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1 obviously the amendment issue can come in -- into play
2 as well, but there's this threshold -- the threshold
3 issue has to be addressed.

4 Whenever we look at CAO's -- whenever we
5 look at issuing a CAO, there's factors that we have to
6 consider. Some are specific to the facility, but
7 there's also some that are standard that we -- that we
8 deal with. One, characteristics of the pipe and any
9 other equipment used in the pipeline facility. So the
10 specific -- essentially the implements that we're
11 dealing with. Obviously the pipes, the steel, the
12 cryogenic steel, whatever it is, we look at that.
13 That's a factor that goes into play.

14 That's going to include age, manufacturer,
15 physical properties, of course, method of manufacture,
16 construction or assembly. All those things will come
17 into play. So that's one -- sort of our first standard.

18 Number two, nature of the materials
19 transported. Obviously in this case it's LNG. That's
20 why we are -- that's why we'll end up -- I will end up
21 addressing a little bit about the specific way that
22 PHMSA approaches LNG specifically, because that's one of
23 the key factors we have to look at whenever we issue or
24 whenever a CAO that we issue is being -- is being
25 evaluated.

1 Number three, the characteristics of the
2 geographical areas in which the pipeline facility is
3 located. This can be climate. This can be geology.
4 This can include soil characteristics, population
5 density, population growth, all that stuff.

6 And then four is a bit of a catch-all. It
7 says, "Any other factors the associate administrator
8 considers appropriate." And that's not something
9 that -- that's not something that is just wide open. We
10 obviously have to justify why we consider that
11 appropriate and certainly would -- will do so in any
12 circumstance and have tried to do so here.

13 So for -- to address specifically really
14 the LNG issue, LNG is called out -- as you all well
15 know, LNG is called out from our -- in our regulations.
16 We have 193 specifically addressing LNG. And, you know,
17 we believe certainly that LNG can be -- is a valuable --
18 certainly a valuable commodity that we want to make sure
19 continues to operate. And obviously, you know, we've
20 had good relationships with Cheniere at Sabine Pass. It
21 is called out specifically, though, because of some of
22 the properties of LNG itself.

23 Now, this is not something that is -- you
24 know, this won't be news to Cheniere, but just to
25 reiterate, for the sake of the record, LNG obviously

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1 being -- well, and let me -- let me actually let you
2 know what I'm looking at. What I'm looking at here is
3 the legislative history of our regulation, so this is
4 language that we have essentially adopted as the
5 regulator. And we've said, you know, "This language is
6 what justifies what we've done to regulate LNG
7 facilities."

8 So, again, it's not Adam telling you this.
9 It's not -- it's not Mary telling you this. It's PHMSA
10 saying, "This is -- these are the reasons why we
11 specifically pay attention to LNG in a way -- again, we
12 realize it can be done safely. We -- we're glad it can
13 be done safely, but we pay attention to it in a way that
14 is specific and can be particular."

15 So a couple of things we've called out in
16 the legislative language here for LNG for enacting the
17 final rule. Obviously, methane gas cooled to minus 260
18 degrees Fahrenheit, that's unique. One of the things
19 that's unique about LNG obviously is it can interact
20 with materials -- typical materials that other gases
21 can't, so minus 260 degrees Fahrenheit is a unique
22 property. It occupies 1/600th of its original volume,
23 so the potential for dispersion and expansion is unique
24 again within LNG.

25 And so you know, and I'm sure you know

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1 this by now, I'm a lawyer. I'm not an engineer. So
2 where I say things -- where I start to say things that
3 sound like I'm an engineer, I will quickly pivot to
4 people who know a lot more than me, but hopefully I can
5 read from our enacting rules and still do it accurately.

6 We talk here also about the fact that LNG
7 can be hazardous because of its -- the specifically cold
8 temperature, obviously we talked about, flammability,
9 dispersion characteristics upon release. So, again,
10 having to do with the occupation of 1/600th of its
11 original volume.

12 For the purposes of -- and, Julie, I want
13 you to correct me if I'm wrong here -- if I get this
14 wrong. For the purposes of sort of a visual, if there's
15 a Coke can, say, or a soda can of LNG, that essentially
16 could expand in terms of volume for a typical gas to a
17 55-gallon drum. Is that right?

18 MS. HALLIDAY: That's correct, Adam.

19 MR. PHILLIPS: Okay. Great. So in terms
20 of just dispersion of volume, obviously that's one of
21 the unique characteristics of LNG that comes into play
22 whenever we have to interact with an LNG facility.
23 We -- that's -- we have to consider that as a unique
24 characteristic. Again, that goes into -- and
25 specifically for this, that goes into the second factor,

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1 the nature of the gas or the product being transported.

2 So, obviously, you know, upon -- one of
3 the other factors we bring in here when it comes to, you
4 know, supplementary information that we sort of consider
5 and did consider when we called LNG out from the code
6 specifically is that when LNG vaporizes, it can
7 rapidly -- and we use these words. Again, these aren't
8 Adam's words -- can vaporize rapidly and the vapor may
9 remain close to the ground, disperse into the atmosphere
10 in the form of a cloud.

11 Obviously, that could be a problem. That
12 could be an asphyxiation problem and a flammability
13 problem. And some of the issues related to lower
14 explosive limit will also and did also come into play in
15 this -- in this circumstance.

16 So, you know, there can be -- CAO's are
17 always -- the reason PHMSA puts out CAO's is because of,
18 like Mary said, the imminent hazard. We don't -- while
19 we don't look at LNG as a particularly dangerous
20 product, we do look at it as a particular product. And
21 its particular characteristics did come into play here
22 for the CAO.

23 So let's talk about -- let me run
24 through -- I'm going to run through a timeline, a tick
25 tock, of essentially how this CAO came about and some of

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1 the circumstances or some of the details surrounding the
2 events that led to the issuance of the CAO and try to
3 give a sense of the timeline here. So two people I will
4 be referencing during this -- and just to give them a
5 heads up partially -- Julie, you on the phone and,
6 Darren, I'm going to ask you as well, you know, a couple
7 of things probably along the way.

8 So January the 22nd, Cheniere filed an
9 NRC I think it was 1202595 -- I think that's right,
10 yeah -- reporting an LNG storage tank had experienced a
11 leak, resulting in a spill into containment. Okay. So
12 that's basically the afternoon on the 22nd.

13 On the morning of the 23rd, again, the
14 very next day, Julie, I believe you made the first call
15 and you talked to James McKeever -- was James McKeever
16 in the room? I'm not sure, but we'll get to all that --
17 who provided that it appeared there was a leak in the
18 top fill line of Tank S-103. At this point all we were
19 dealing with was S-103.

20 That next day, again, within that hour --
21 not the next day. I'm sorry. That same day, within the
22 hour, essentially AID, PHMSA's Accident Investigation
23 Division, as well as the Southwest Region, like Mary
24 mentioned, launched the investigation and decided to
25 really engage on the issue. Again, later that day,

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1 Julie met with Paul Nielson and a few other people from
2 Cheniere in Houston, I believe it was.

3 Is that right, Julie?

4 MS. HALLIDAY: That's correct, at the
5 Cheniere Houston office.

6 MR. PHILLIPS: Okay. Great. Thank you.

7 And that there was a question of an alarm
8 on Tank S-103. There was some discrepancy as to whether
9 or not the alarm was triggered or accidentally
10 triggered, I believe, but that a technician did report
11 that LNG was escaping from secondary containment and
12 that there were visible tracks and cracks on the outer
13 tank, ice at the top of the tank and some paint had
14 spalled on the outer tank.

15 Now, Darren, can you talk a little bit
16 about what your concern would be initially finding
17 out -- might be initially finding out that there might
18 be cracks on an outer tank of LNG?

19 MR. LEMMERMAN: Well, the initial concern
20 is the outer tank of an LNG tank's made out of carbon
21 steel. It's not designed to be in contact with negative
22 260 degree Fahrenheit LNG. So the severe stresses
23 caused by the chilling and cooling at such a fast rate
24 will cause cracks in unknown locations. And the extent
25 of those cracks are fully unknown at -- you know, up

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1 front and right away.

2 MR. PHILLIPS: And in terms of -- in terms
3 of sort of initial action, what did you think -- you
4 weren't involved at the time. I know that you
5 weren't -- you were sort of involved in the initial
6 push. But in terms of how PHMSA would approach any sort
7 of -- any sort of tank, much less an LNG tank, like
8 having outer cracks, what would you do typically?

9 MR. LEMMERMAN: What we would typically
10 do, obviously make the area safe, evacuate the areas to
11 safe zones, probably start reducing product inside the
12 tank as much as we can. You know, it's a lot of
13 unknown. It's hard to know what to do, so safety is the
14 first priority.

15 MR. PHILLIPS: Gotcha. Okay. Great.
16 Thank you. So -- and it is -- it is clear from those
17 conversations that Cheniere did initiate some actions to
18 isolate specifically Tank S-103. There was some
19 de-inventorying of the tank. I think I'm saying that
20 right, de-inventorying of the tank.

21 At that point it sounded like to us, at
22 least to our -- you know, what Julie was learning
23 from Cheniere folks, that there was no plan to bring in
24 outside experts. There was still a plan at the time to
25 kind of keep it inside. And there was some reticence to

1 share what Cheniere's sense of what might have gone
2 wrong.

3 It seemed to us -- again, you know, this
4 is -- this is sort of our initial investigation -- that
5 there may be some idea -- Cheniere may have some idea
6 what had gone wrong but didn't want to necessarily share
7 that up front or completely up front. There was --
8 Tank S-103 was roped off and their sort of emergency
9 brigade, again, it sounded to us like it posted -- or it
10 essentially separated people from the area, took the
11 actions that we would obviously, you know, take
12 ourselves and would suggest people taking. So that was
13 good.

14 It did sound like also at the time that
15 the lower explosive limit did reach about 15 feet from
16 the tank. So essentially the cloud of LNG had reached
17 its lower explosive limit approximately 15 feet from the
18 tank.

19 PHMSA, again, on that next day or that --
20 the day following the incident started making data
21 requests. The following day, the 24th, there were
22 obviously some pictures that passed back and forth.
23 Cheniere did its 48-hour update of the NRC report and
24 more information, again, pushed out.

25 The 25th, the following day, FERC visit

1 the site -- visited the site, performed some interviews,
2 took some pictures, collected some data. FERC began to
3 be on site.

4 Julie, on that 25th, it also sounded like
5 we -- you spoke with Paul Nielson. Was there some
6 question of finding something out about Tanks S-101 as
7 well as S-102 as well on the 25th?

8 MS. HALLIDAY: Right. So I initially
9 asked when we were on site if there were other alarms
10 that had gone off during the incident, and there wasn't
11 a certainty about it.

12 That was one of our data requests, so they
13 came back. But as we were talking about different
14 things that were happening, it's at that point that we
15 become aware that they had previously had some -- this
16 Matrix report. So previous excursions had happened on
17 Tanks 101, 102 and 103. This is the first time that we
18 learned that the problem is not just with Tank 103.

19 MR. PHILLIPS: Okay. Great. And at the
20 time, on the 25th, did you actually have the Matrix
21 report?

22 MS. HALLIDAY: We made the request for
23 that report and then we received it on the 27th.

24 MR. PHILLIPS: Okay. Great. And, again,
25 during this time, again, no -- well, we know that as

1 well as -- sort of as we're finding things out, we also
2 knew that Cheniere was taking actions and taking steps
3 that -- I don't think there was any question -- and,
4 Julie, correct me if I'm wrong, but I don't think there
5 was any question that the things we did know about that
6 Cheniere was doing were problematic at all to us at this
7 point. Is that right?

8 MS. HALLIDAY: Correct.

9 MR. PHILLIPS: Okay. Great. So on the
10 27th -- again, now fast forward a few days after
11 requesting it on the 25th -- we finally did receive a
12 copy of that Matrix report and, you know, for the first
13 time essentially had the chance to review it.

14 The 29th, two days after that, at this
15 point Tanks 101 as well as 102 seemed like they were
16 still in normal operation even though, again, on the
17 25th we had started to hear there might be some issue
18 with Tanks S-101 -- or some potential issues.

19 I don't want to -- I don't want to
20 characterize it meaning that anybody necessarily knew
21 exactly what was going on, but there might be some
22 issues on Tanks S-101 and 102 a few days before. But on
23 the 29th, it seemed like they were still in normal
24 operation.

25 There were some cold spots that were

1 identified, I believe, on Tank S-102 on that same day,
2 and then there was a report of some vapor seepage from
3 Tank S-101 from an annular space out of the bottom of
4 Tank S-101, again, on the 29th. This is as it evolves.

5 On the 30th, Tank S-101 was found to be
6 below design temperature, minus 40 versus minus 20. I
7 believe that's right. It continued to be about half
8 full of LNG.

9 MS. BALDWIN: This is Tank 101?

10 MR. PHILLIPS: This is Tank 101, yes.

11 MS. BALDWIN: Okay.

12 MR. PHILLIPS: And it's at this point
13 where it seemed like there might be -- again, there was
14 maybe an inkling a few days before this that there might
15 be an issue, but then there started to be maybe a more
16 serious question here from our folks after having found
17 this out. That there -- it was also clear on, again,
18 the 30th that vapors were emitting at 14 locations along
19 the base of the tank between the bottom plate and the
20 pile cap. There was --

21 MS. BALDWIN: This is, again, just on
22 Tank 101?

23 MR. PHILLIPS: Yes. I'm sorry. Thank you
24 for clarifying. Yes.

25 We also asked about a contingency plan.

1 Julie, I believe it was you who asked about a
2 contingency plan requiring Cheniere to isolate the tank
3 when outside of design temperature. And that was
4 something that we did not -- were not able to get from
5 Cheniere.

6 On the 31st, we learned that Tank S-101
7 had been as low as -- and, Julie, correct me if I'm
8 wrong on this -- minus 250 degrees. Is that right?

9 MS. HALLIDAY: That's correct.

10 MR. PHILLIPS: Okay. And it had remained
11 below design conditions for over a week?

12 MS. HALLIDAY: That's correct.

13 MR. PHILLIPS: Okay. And Cheniere at this
14 point was still planning on bringing CB&I, as we
15 mentioned before, but CB&I was not yet on site. And
16 this is on the 31st.

17 By the 2nd, February the 2nd, Southwest
18 had also visited the site again with a separate group,
19 and there was a -- there was some sense that Cheniere
20 might submit or did submit and may have later retracted
21 a, you know, report on S-101. So it started to become
22 clear that we had an issue -- a specific issue on S-101
23 that needed to be addressed as well. There was also a
24 temporary repair plan for Tank S-103 and a temporary
25 heal plan for Tank S-101.

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1 By the 6th, a few days after that -- just
2 a few days after that, it was -- I think both sides by
3 that time knew that there was going to be a CAO issued,
4 and Cheniere did start to take steps to seal up
5 Tank S-101. They did also -- we also did hear from them
6 that they thought as well -- they provided to us a sense
7 that the bottom plank -- plates of both Tanks S-101 and
8 S-103 may have been compromised. So obviously -- that
9 was February the 6th. And by that time, you know, two
10 days afterwards, we did issue the CAO.

11 So, you know, for PHMSA, again, this was
12 not -- this was not a decision that we ever come to
13 lightly. It was not meant to be a -- you know, when we
14 do a CAO, our whole purpose is really to --
15 understanding the four factors that we have to deal
16 with. We want to make sure that we are -- we're getting
17 to safety. That's our number one job.

18 So as the -- as the circumstances of our
19 interactions with Cheniere continue from January the
20 22nd all the way to -- through February 8th -- just
21 prior to February the 8th really, you know, we felt, as
22 the information kept revealing itself, we needed to do
23 something. So that's why we issued the CAO that we did
24 on February the 8th.

25 So if it -- it was helpful for me visually

1 to see some of the -- to really understand from our
2 engineer some of what we're talking about here that
3 might be the problems, but let me talk through a little
4 bit about what we did on our CAO specifically and let --
5 here we go, and make it clear kind of, again, why we
6 came to this determination.

7 So, you know, on the February 8th CAO,
8 there were preliminary findings. Now, of note -- and
9 this is something, you know, we always want people to
10 know. CAO's are instruments that we -- you know, we
11 recognize their importance and we also recognize that
12 they have a certain -- they have a specific type, so
13 that's why we name our findings preliminary findings.

14 You know, we are not -- we're not waiting
15 to do something here because of the question of imminent
16 hazard. So we took a step because of imminent hazard,
17 but we also recognize we took a step early and so we put
18 things like preliminary findings.

19 So, again, this interaction with -- our
20 interaction with Cheniere from January the 22nd through
21 February the 8th, as well as what we put in our February
22 the 8th CAO preliminary findings, we are always happy to
23 be corrected on anything that is wrong or off or won't
24 get us to safety, because that's our job one. You know,
25 we're not here to do anything else but get to safety.

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1 So I just wanted to point that out in terms of the
2 instrument that we did bring.

3 But in terms of our determination for
4 necessity, on Page 4 of our CAO, there's a couple of
5 factors here. The presence of the Sabine employees and
6 contractors on site. You know, for us, obviously
7 protecting life and having safety on site is very
8 important. We recognize that that's absolutely the same
9 for you all. And, you know, we want to make sure that
10 part of the reason why, if not the first reason why, we
11 take any of these steps is to protect that life. So
12 that is an essential part of our determination here, and
13 we want to make sure that that is called out.

14 Secondly, potential for disruption to
15 major transportation modes, including highways and
16 waterways. In terms of, you know, not only this
17 facility itself but the nature of the product
18 transported, this is a unique facility. Sabine Pass is
19 a unique and special facility. So obviously it matters
20 what we do with you all, and we want to make sure that
21 we recognize that as well in this determination.

22 The hazardous nature of the product being
23 stored, we talked about this in terms of some of the
24 specific issues related to LNG itself. The
25 unpredictability of a brittle failure and possible

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1 ignition sources.

2 And, Darren, I wanted to ask you a little
3 bit about that. Can you talk about why it matters that
4 there was -- there were cracks as opposed to maybe bends
5 or potential for bends?

6 MR. LEMMERMAN: Yes. The outside of the
7 tank is carbon steel and has a design criteria of minus
8 20 degrees Fahrenheit. So if it gets below that point,
9 it's -- it reaches a transition temperature. And at
10 that transition temperature, carbon steel basically
11 turns extremely brittle. And that brittle state and
12 additional extreme cold temperatures basically causes
13 pull and tension and just causes it to fracture like
14 glass at those temperatures. So it can behave very
15 unlike carbon steel does at normal temperatures.

16 MR. PHILLIPS: So we're talking about the
17 difference between an inner tank that can take the
18 temperatures and an outer tank that really can't deal
19 with the temperatures of the LNG. And we saw some
20 effects on that outer tank. Is that right?

21 MR. LEMMERMAN: Absolutely correct, yeah.

22 MR. PHILLIPS: Okay. And our concern --
23 and we believe it's Cheniere and Sabine Pass's concern
24 as well -- is that if that material that's very
25 particular and very specific gets to that outer tank,

1 the outer tank really can't -- it can't be counted on to
2 fully contain it?

3 MR. LEMMERMAN: Right. It will not
4 contain LNG. It will fail.

5 MR. PHILLIPS: Right. Okay. And, Julie,
6 can you -- can you talk a little bit specifically about
7 the relationship that we saw and the potential for the
8 relationship that we saw in the issues that were present
9 on Tank 3, meaning the outer cracks, and then sort of
10 the -- what seemed to be sort of the building issues on
11 Tank 1 where we may have been seeing -- or how did it
12 look to us?

13 Could that be transitional? Was that
14 something that we could sort of -- we could pass over,
15 or how did we look at that?

16 MS. HALLIDAY: Yeah. So at this point
17 we're, you know, obviously working with other subject
18 matter experts at PHMSA and -- as well as our
19 consultants, and one of them being a structural
20 geotechnical engineer.

21 And what was uncertain then is, well,
22 could these cracks continue to propagate so that you're
23 getting greater failures of the tank, because it's still
24 under conditions that are below design temperature? And
25 at this point, he's suggesting that what needs to be

1 done is certain engineering analysis, and we've conveyed
2 this to Cheniere.

3 And, again, they're bringing on board
4 additional subject matter expertise, but it's not, I
5 guess, happening quite as quickly as one would expect
6 when you're having a situation that they're
7 experiencing. So we recognize that, you know, there's
8 still this uncertainty of how can these materials
9 continue to be subjected to these cryogenic
10 temperatures? How are they going to respond?

11 And, additionally, I guess there were a
12 couple of things that weren't mentioned, but we see that
13 there's other issues, one being the potential design
14 flaws within the tank of the fill lines and how those
15 fill lines could have spilled the LNG into this annular
16 space. So there's certain hypotheses that are -- have
17 been put forward.

18 We're also learning that they've had some
19 issues with the instrument airlines freezing up and that
20 they had to use different valves than they usually use
21 and that one of those valves that they thought was
22 closed had inexplicably opened. And, you know, they at
23 this point go and physically disconnect the instrument
24 error so that that can't happen again. And they do that
25 to all the tanks, but we're still not certain why did it

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1 happen.

2 So there just continues to be a lot of
3 additional questions as to is this problem contained, is
4 it contained within Tank 103, or is it going to
5 potentially be a problem in the other tanks as well?

6 MR. PHILLIPS: And two things, Julie.
7 Thank you for mentioning the question of design and
8 manufacture. For the purposes of the record, were --
9 from our understanding of all of the tanks, were they
10 all designed similarly?

11 MS. HALLIDAY: Tanks 1 through 3 are of
12 identical design and also all manufactured by Matrix.
13 And Tanks 4 and 5 -- I'm sorry. They were all designed
14 by Mitsubishi Industry -- Heavy Industries. And Matrix
15 constructed Tanks 1 through 3 and Mitsubishi Heavy
16 Industries constructed 4 and 5. 4 and 5 are almost
17 similar. There are a few slight differences but are for
18 the most part a similar design.

19 MR. PHILLIPS: Okay. Great. Thank you.
20 And, secondly, you know, explain this to the lawyer in
21 the room who, you know, couldn't do the math to be an
22 engineer. When it comes to actually finishing or
23 evaluating fully the issues on any of these tanks, are
24 there particular problems that make them difficult
25 and more -- and that stretch out really the ability to

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1 do this assessment?

2 MS. HALLIDAY: Well, because you can't
3 visually assess. Right? You can't get close to the
4 tank as it's emitting vapors. You have to first stop
5 that before you can start doing some actual visual
6 examination or thermal scans. So just the not knowing.
7 Right? You don't know what's behind that wall.

8 MR. PHILLIPS: Right. So in the context
9 of -- so what we're looking at as these facts continue
10 to develop and we get closer and closer to what seems
11 like potentially a problem that may exist in more than
12 one of these tanks, it's not easy for us to assess or
13 for Cheniere to assess?

14 MS. HALLIDAY: That's correct.

15 MR. PHILLIPS: Okay. Great. Thank you.
16 So unpredictability, brittle failure issues, we talked
17 about that.

18 One of the other things we also -- we also
19 found out with this Matrix report was that there were --
20 there was some past history and some question of similar
21 problems that had -- that had occurred before. And,
22 again, this was new information that we got with the
23 Matrix report. And incorporating that into our question
24 or our issue of imminent risk or imminent hazard was a
25 key part of this.

1 There were also -- and this goes back to
2 what Julie was just talking about. There's still
3 uncertainty about exactly what may be the cause of the
4 incident itself. This is -- obviously, you all know
5 this is a difficult environment to work in.

6 And in order to make any sort of
7 assessment, we recognize that it's going to cost time
8 and money in ways that were just hard to do and
9 impossible to do, I should say, really within January
10 the 22nd to February the 8th, and it's difficult. So --
11 and we certainly want to acknowledge that subsequent to
12 that and really even before that that we knew you all
13 have been taking steps that have been helpful. So, you
14 know, I do -- I want to make sure that's in the record
15 as well.

16 And then, you know, maybe finally as
17 our -- in terms of our determination, the ongoing -- the
18 investigation to finding out what was -- actually
19 happened at the site continues to happen. It takes a
20 long time. It continues to happen.

21 It's including -- it sounds like CB&I is
22 on board and other, you know, outside experts have been
23 brought on board in order to really supplement, you
24 know, the staff that's there as well and as well as to
25 kind of supplement what we've, you know, been able to

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1 try to add to the site.

2 So adding all of this up, you know, really
3 PHMSA took the February 8th action, you know, and,
4 again, an imminent -- a CAO was taken with the question
5 of imminence in mind in order to really more fully
6 understand and to help really all of us more fully
7 understand what was happening at the site. And it's for
8 those reasons that we ended up taking -- we ended up
9 issuing the CAO on February the 8th.

10 So what did I leave out, Mary?

11 MS. McDANIEL: Nothing. I guess the only
12 thing that I would add is that following an incident or
13 accident when there are those conditions that Adam
14 talked about, where we are unsure of the cause or the
15 extent of the damage that might have been -- that
16 occurred on the facilities, that's when a CAO would be
17 issued because the continued operation of that facility
18 is -- comes into question. So that further supports the
19 reason that this CAO was issued.

20 MS. BALDWIN: I have a couple of
21 questions. Maybe Mr. Katchmar can talk -- can speak to
22 this. The -- PHMSA's accident investigation team, how
23 does that liaison occur between investigators of that
24 team and Southwest Region personnel who would normally
25 investigate such incidents?

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1 MR. KATCHMAR: So we received an NRC
2 report from the U.S. Coast Guard, and I immediately saw
3 LNG pulled into the dike area outside of the tank, which
4 never happens, cracks in the tank. That perked my ears.

5 I immediately called Julie, because she's
6 our LNG expert on the team. I sent another less
7 experienced person with her, because Julie was brand new
8 to our team and this other person had been on board for
9 almost a year. And we immediately called down to the
10 Southwest Region here and said, you know, "We have
11 something going on out at Cheniere and we would like for
12 you to be a part of it."

13 So we got one engineer from here to meet
14 up with Julie and our other engineer, and they, I think,
15 went to Cheniere offices here in Houston first to get
16 the lay of the land, do a little bit of background
17 investigation, find out really what was going on and if
18 it would be safe to even go to the facility. And I
19 think either later that day or the next morning they
20 went out.

21 MS. HALLIDAY: You know, Peter, just to
22 provide a little more insight, because we were flying in
23 we didn't get there until later in the -- pretty late in
24 the afternoon. So we flew into Houston, met in the
25 Houston offices. And then, because it's a bit of a

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1 drive out to the facility, we drove out after that
2 meeting and then in the morning we attended the site.

3 MS. BALDWIN: So this is the morning of
4 the 23rd or the 24th?

5 MS. McDANIEL: 24th.

6 MS. HALLIDAY: The morning of the 24th.
7 Let's see. The accident's on the 22nd.

8 MR. KATCHMAR: Yeah.

9 MS. HALLIDAY: Yeah. We -- right. We met
10 in Cheniere's office the evening of the 23rd and then
11 were on site on the 24th.

12 MS. BALDWIN: Okay. Who was the Southwest
13 Region inspector?

14 MS. McDANIEL: Gene Roberson.

15 MS. BALDWIN: Gene Roberson.

16 MR. KATCHMAR: So just as a little bit of
17 a background, the accidents -- up until about a year
18 ago, the accidents were all performed by the region in
19 which they occurred.

20 And to provide a little more consistency,
21 PHMSA started up this Accident Investigation Division
22 down in Oklahoma City. And so our division took over
23 the response to all the NRC reports. And so we go
24 through and review them pretty much immediately upon
25 submission.

1 And if there's something big that happens
2 in a region, we will call the region and -- well, we'll
3 make a decision whether we are going to deploy or not.
4 And we will call the region and let them know that
5 something big is going on in their region and they're
6 welcome to join us. And predominantly that is because
7 the Region has the knowledge of the specific pipelines
8 that could be involved.

9 We have a general knowledge of all the
10 pipelines in the country but not the specific knowledge
11 maybe for that operator or that, you know, specific
12 situation. So we like to get the Region personnel, who
13 are familiar with that operator and that pipeline,
14 involved early on.

15 MS. BALDWIN: So can you give me an idea
16 of -- I know that you said you made a site visit and
17 that's when you determined that you would deploy a team
18 to investigate?

19 MR. KATCHMAR: No. I -- we --

20 MS. BALDWIN: You just saw pictures?

21 MR. KATCHMAR: I received the NRC report.

22 MS. BALDWIN: Okay. Okay.

23 MR. KATCHMAR: And from what the -- or the
24 statements in that NRC report --

25 MS. BALDWIN: Gotcha.

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1 MR. KATCHMAR: -- that LNG had gotten into
2 the dike area outside of a tank was.

3 MS. BALDWIN: Significant.

4 MR. KATCHMAR: -- significant to me --

5 MS. BALDWIN: Okay.

6 MR. KATCHMAR: -- critical.

7 MS. BALDWIN: And so, Ms. Halliday, can
8 you give me -- since you actually made a site visit, can
9 you give me just a more detailed description of what you
10 observed when you visited the tank and which tanks you
11 personally observed?

12 MS. HALLIDAY: Right. So the -- we were
13 down on the morning of the 24th. And Alex, another
14 accident investigator, and Gene Roberson from Southwest
15 Region and I were escorted to Tank 3.

16 So as you walk on the dike wall, they have
17 their EMT brigade positioned on the top of the dike to
18 make sure that nobody's going into the affected area.
19 And so we went down into the diked area so that we could
20 get fairly close, obviously within some safe distance,
21 to be able to view the cracks. And, you know, you can
22 see the ice had formed where the natural gas emissions
23 from the -- from inside the annular space are being
24 emitted and cooling that tank. So you can see the areas
25 that are affected.

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1 You can also see on the tank where the
2 Perlite inside the tank has come out through those
3 cracks and you can see Perlite, the insulation that's in
4 that annular space that has come out through the tank
5 cracks and is on the ground within the diked area. You
6 can also see the spalling paint where it appears that
7 LNG has hit the outside of the tank and then, you know,
8 comes down the side.

9 So at that point, after we viewed it,
10 we've asked Cheniere to take photos for us because you
11 have to have an intrinsically safe camera to do that.
12 At that point, you know, we went back to the truck and
13 we took a tour of the liquefaction area and some of the
14 other parts of the facility because I had not been at
15 this particular facility before, so just to get a better
16 understanding of the lay of the land, the distance
17 between different types of facilities within that plant.
18 And then, you know, drove past the brigade to get an
19 understanding of what type of resources they have to
20 respond to emergencies.

21 And at that point, we went back and did a
22 debrief, you know, asked for -- we put together a data
23 request list and confirmed on both sides what that list
24 was. And then we left the facility.

25 I'm sorry. I'm still -- that's why I'm

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1 not down there today is I -- when I got back, I ended up
2 catching pneumonia, so I'm just trying to struggle with
3 not coughing while I'm talking to you guys here.

4 MS. BALDWIN: Well, I thank you again for
5 your participation since -- but I did want to know, is
6 that the only time that you were actually physically in
7 the facility or did you return?

8 MS. HALLIDAY: No. That was the only
9 time --

10 MS. BALDWIN: Okay. So --

11 MS. HALLIDAY: -- I visited them.

12 MS. BALDWIN: So can you just walk through
13 in a little bit more detail -- and Adam briefly
14 mentioned before -- how you became aware of the issues
15 with the other tanks?

16 And I should note that we're sort of
17 variously referring to the numbers of these tanks, like
18 we're talking about Tank 101, 102 and 103. So I'll just
19 make an executive decision that we refer to them that
20 way going forward just so that we're all clear about
21 what we're talking about.

22 But can you give me just a more detailed
23 description of how you became -- how your team or the
24 regional staff became aware of the issues with the other
25 tanks?

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1 MS. HALLIDAY: Sure. So, you know, daily
2 Paul Nielson and I, and also FERC, so we're trying to
3 set up some interagency coordination among FERC and
4 their LNG experts as well, so that -- we're trying to
5 not -- we're trying to ease the federal coordination for
6 Cheniere instead of having multiple people ask different
7 data requests and having different phone calls. So
8 we're setting up these calls pretty much daily and
9 submitting our data requests.

10 And the data requests had taken a few
11 days. I guess, you know, our first data request on the
12 24th, we start getting some -- those responses on the
13 29th. And as we kind of wanted a little bit each time
14 on the call and then request different reports, the
15 picture's becoming clearer that this isn't just an issue
16 with Tank 103, but it, you know, takes, I guess, a
17 little bit of questioning to get an understanding that
18 the -- Tank 101 and Tank 102 had at some point been
19 operating below design parameters.

20 Tank 102, we understand, warmed up fairly
21 quickly. The Tank 101, I guess -- we didn't grasp right
22 away that Tank 101 had stayed for so long below design
23 temperature. You know, we make the data requests, but
24 because it takes some time before those data requests
25 come back, it just took a while to understand exactly

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1 what situation this tank was in. And during this time,
2 the Tank 101 continues to be kept in normal operational
3 use. It still has a large amount of LNG in it.

4 So I'm sorry. Is that answering your
5 question?

6 MS. BALDWIN: Yes. So did you -- so at
7 what point was there sort of a sense from an engineering
8 perspective that a CAO was necessary to address the
9 conditions on the ground? How did that lead to --

10 MS. HALLIDAY: Well, really --

11 MS. BALDWIN: -- issuance of the CAO?

12 MS. HALLIDAY: You know, really when we
13 understand that it's not just Tank 103, when it comes to
14 the point where it's Tank 101 and 102, but we don't feel
15 like there's affirmative understanding of, well, what
16 happened to tank -- to these tanks. Right?

17 There's still just a hypothesis going on.
18 And part of that Matrix report, when we read it on the
19 29th, says, you know, that there's certain
20 recommendations that the facility not be operated in a
21 certain manner, using the bottom flowlines. And, you
22 know, as it's becoming aware, well, the bottom flowlines
23 were used and they were used because there was some, you
24 know, equipment failure on instrument airlines.

25 And then additionally we find out that a

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1 valve that they thought was closed and could not be
2 opened opened uncommanded. So it -- you know, the 29th,
3 now when we're understanding that all of these things
4 had occurred and there's still not an understanding of
5 why it occurred, it just -- and the other part that's
6 not coming on as quickly as I would have liked to have
7 seen is the additional subject matter expertise.

8 And recognize -- so the week of the 28th,
9 that next week, is the NFPA 59A meeting, so this is
10 primarily what -- the regulations requirements for LNG
11 facilities in the U.S. We are down at Cheniere's
12 headquarters, as they're hosting the group of LNG
13 subject matter experts in the U.S., to work on the
14 revision of the technical standard. So we're at
15 Cheniere's headquarters office starting on the 29th, so
16 we're there the week after the event occurred.

17 And we met with Cheniere while we were
18 down at their headquarters as well. And, you know,
19 there was some difficulty because we do like
20 videoconferencing to be able to understand exactly where
21 emissions are coming from and there's just some struggle
22 to get, I guess, information timely and in enough
23 detail.

24 MR. PHILLIPS: Julie, is it -- do you mind
25 if I ask her a question as well?

1 MS. BALDWIN: Yes.

2 MR. PHILLIPS: Is that okay?

3 Julie, is it fair to say that after we --
4 after we got the Matrix report and there was a question
5 of vapor seepage with Tank S-101 and then subsequent to
6 that a team from Southwest went out there as well and
7 there were continued issues on S-101, that that's really
8 when we sort of tipped over in terms of thinking that
9 this was -- this was a CAO and we needed to really kind
10 of try to get a handle on the situation?

11 MS. HALLIDAY: Yeah. I think that's a
12 good summary of it, Adam.

13 MS. BALDWIN: Okay.

14 MS. McDANIEL: The Southwest Region staff
15 went out on February the 2nd?

16 MR. PHILLIPS: Yeah.

17 MS. BALDWIN: Okay. I think I have an
18 understanding.

19 Mr. Phillips, is there anything else you'd
20 like to present?

21 MR. PHILLIPS: Can I have one minute?

22 MR. EWING: Ms. Baldwin, while they're
23 conferring, may I ask you a personal favor?

24 MS. BALDWIN: Sure. We're --

25 MR. EWING: You have such a soft and

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1 lovely voice, but I --

2 MS. BALDWIN: I'll attempt -- I am also
3 fighting a cold, but I will attempt to project --

4 MR. EWING: Thanks.

5 MS. BALDWIN: -- past.

6 MR. EWING: Appreciate it.

7 MS. DAUGHERTY: I wish I'd have known
8 that. I would have sat over there.

9 MS. BALDWIN: It's much less temperate in
10 Washington, DC, than it is here.

11 MR. EWING: Well, I hear it's much more
12 pleasant here than in Washington.

13 MS. BALDWIN: Yes, it definitely is.

14 MR. PHILLIPS: Oh, one other thing. I
15 wanted to ask one more question.

16 So, Darren, you know, we term -- we talked
17 about cracking before and brittle failures. As a -- you
18 know, it's such a unique condition and one where LNG
19 being the specific product it was or that it is, you
20 know, we were having to deal with.

21 In terms of sort of cracks in the outer
22 tank, not only just spreading maybe potentially
23 unpredictably, were there any other concerns related to
24 cracking that caused us to really consider we might
25 need, you know, an instrument here that we needed to

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1 kind of help to get a handle on?

2 MR. LEMMERMAN: Yeah. I mean, we really
3 didn't understand the extent of the cracking that's
4 occurring. And being in a cryogenic state could -- and
5 a lot of stresses are taking place, those things are
6 warming and still chilling, there was actually a lot of
7 water appurtenance that was about 50 percent all the way
8 around through the weld that was cracked and it's
9 possible that other cracks could interconnect and then
10 actually could cause a chunk of it that could crack,
11 circle back to it basically and fall out of the side of
12 the tank. It didn't occur that way, but we had no idea
13 how long those cracks would continue growing.

14 MR. PHILLIPS: So, again, continuing
15 with -- or dealing with unpredictable brittle failures,
16 the potential for them to interconnect, that was
17 something we were also concerned about?

18 MR. LEMMERMAN: Right. So if they were to
19 interconnect and with internal tank pressures
20 that could -- between a half a pound to a pound could
21 push that chunk of metal out of -- out of the side of
22 the tank, which would cause the Perlite to fall out.

23 And it's hard to say what would happen
24 after that point, because now the -- now the internal
25 tank is exposed to basically atmosphere temperatures

1 going back in there so...

2 MR. PHILLIPS: So the unique system that's
3 essentially at stasis typically but is held at stasis by
4 particular circumstances, including this insulation, we
5 were concerned that that stasis might break -- or could
6 break down --

7 MR. LEMMERMAN: There's --

8 MR. PHILLIPS: -- maybe not might break
9 down but --

10 MR. LEMMERMAN: There was potential for
11 that.

12 MR. PHILLIPS: Right. Okay. Thank you.

13 MS. BALDWIN: So is there anything else?
14 And now we'll turn back to the Region --

15 MR. PHILLIPS: Yes.

16 MS. BALDWIN: -- if there's additional
17 testimony, but I just wanted to see if -- we've gone
18 beyond our break time.

19 MR. PHILLIPS: I think that's it, yes.

20 MS. BALDWIN: Okay.

21 MR. PHILLIPS: I appreciate it.

22 MS. BALDWIN: So it's 11:07. Let's come
23 back at --

24 MS. McDANIEL: No. You're one hour --

25 MS. BALDWIN: It's 10:07, so we're

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1 actually not -- we're ahead of time.

2 MR. PHILLIPS: In Washington it's 11:00.

3 MS. BALDWIN: We're ahead of time so...

4 MR. PHILLIPS: We're in Central time.

5 MR. EWING: Time flies when you're having
6 fun.

7 MS. BALDWIN: Time flies when you're
8 having fun.

9 Okay. So I can turn to Cheniere now for
10 its case in chief. And the Region obviously will have
11 an opportunity to present additional information and ask
12 questions later, but I just wanted to get a full -- some
13 overview of what the Region was presenting.

14 MR. EWING: Thank you. Good morning. It
15 is really good to be with you. I'm glad for this
16 opportunity. Cheniere, Sabine Pass really thanks
17 everyone who's participated not just today but in
18 leading up to today. It's an important opportunity to
19 talk. It's an important opportunity to understand and
20 share understanding all throughout the room. I think
21 that's what we're here for as much as anything. And it
22 takes time and effort on everyone's part.

23 What -- we have much to say, honestly.
24 And I think we start maybe with the simple proposition
25 that we requested to be heard today because there is not

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1 and has not been an imminent safety threat to the public
2 that would justify a CAO. And what we'd like to do is
3 explain why that's the case.

4 I think that tracks the central feature of
5 what PHMSA is also interested in, which is safety and
6 getting to safety. So we're here to explain our view of
7 why the kind of safety threat that precipitated the CAO
8 was not, in fact, in evidence.

9 Now, to do that, we've already made some
10 introductions. And what I would suggest is that I make
11 a little bit deeper introductions when I call on people.
12 I think that will would be most efficient and orderly.
13 If at any time you have questions or would like to --
14 just let me know. Maybe it's helpful also to talk a
15 little bit about a road map for how we would intend to
16 talk about all of these issues.

17 It might help to start with only a couple
18 of basics about the facility so that we have a visual,
19 for example. We can explain where is what, so you have
20 something to think about, because you're hearing about
21 references to Tanks 1 and 3 and so forth.

22 MR. PHILLIPS: Kevin, can I interrupt you
23 briefly?

24 MR. EWING: Yeah.

25 MR. PHILLIPS: I'm sorry. Somebody on the

1 phone -- Julie is having trouble hearing.

2 MS. McDANIEL: Can you move --

3 MR. PHILLIPS: Can I climb over and --

4 (Brief discussion off the record.)

5 MR. EWING: So in a moment I would suggest
6 briefly just giving you a sense of what the facility is.
7 I just think that that helps.

8 MS. BALDWIN: Sure.

9 MR. EWING: Also a little bit of
10 background on some of what Adam covered relating to the
11 timeline, not to impede it but to just push a couple of
12 things and verify certain things. And then I think we
13 really get to the meat of the matter, which really
14 relates to hazard and our understanding of threats and
15 hazards and how they played out in this particular
16 circumstance. And that has several different components
17 and they build on one another.

18 I am very, very well aware that we have
19 wonderful expertise in the room, including yours.
20 Nevertheless, I think it will be helpful if we build
21 toward an understanding. And I'm not going to waste a
22 lot of time with preliminaries, but it will be important
23 to do that.

24 So with that in mind, maybe, Maas, if you
25 can come up. Can we show -- thank you. Why don't you

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1 come up here and you can point to things and so forth?

2 This is a simple aerial photograph,
3 obviously nothing special. We got it from Google Earth,
4 but it shows the facility. It's oriented correctly with
5 north at the top so you have a sense. There's a
6 waterway and then there's that sort of light area, which
7 is the facility itself.

8 And, Maas, introduce us to the facility --

9 MR. HINZ: Okay.

10 MR. EWING: -- and remind us, please, of
11 your title and function at the facility.

12 MR. HINZ: Okay. My name's Maas Hinz.
13 I'm the maintenance manager at the facility.

14 MS. DAUGHERTY: We're going to turn on the
15 other projector --

16 MR. EWING: No, no.

17 MS. DAUGHERTY: -- so that people --

18 MR. EWING: -- no, no.

19 MS. DAUGHERTY: -- in the back of the room
20 can also see it.

21 MR. EWING: No. We would like not to do
22 that, and that was discussed earlier.

23 MS. DAUGHERTY: Well, we're going to have
24 people --

25 MR. EWING: This is the --

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1 MS. DAUGHERTY: -- crowding that.

2 MR. EWING: -- participants and it's
3 important. We will shortly get to material that is not
4 appropriate to share, and so to forestall a lot of
5 flipping of machinery back and forth, which is what it
6 takes to turn that on --

7 MS. DAUGHERTY: To show this?

8 MR. EWING: Not -- that isn't my concern,
9 but it's going to be disruptive to constantly flip this
10 on and off.

11 MS. DAUGHERTY: Defer to Kristin.

12 MR. EWING: Thank you. I think she is the
13 presiding officer.

14 MS. BALDWIN: I think that -- this is from
15 Google Earth again?

16 MR. EWING: Yeah.

17 MS. BALDWIN: I think that we can share
18 this with --

19 MR. EWING: Then --

20 MS. BALDWIN: Or at the --

21 MR. EWING: Let's have a technical person
22 come up and flip it --

23 MS. BALDWIN: It's just a little short --

24 MR. EWING: -- because it's your
25 equipment, so we'll need that.

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1 MS. McDANIEL: Let me just make sure I've
2 got the right --

3 MR. EWING: I do think it's very important
4 as a participant who is an observer that we make sure
5 that the presiding officer has an opportunity to reach
6 those issues.

7 MS. DAUGHERTY: I understand.

8 MR. EWING: Thank you.

9 MS. McDANIEL: Is it on?

10 MS. BALDWIN: So just, again, for the --
11 for the people that are on the phone, we're just looking
12 at a Google Earth map of the Cheniere facility right
13 now.

14 MS. McDANIEL: Is that good? Okay.

15 MR. EWING: Fundamentally our view, as you
16 laid out, is that this is an opportunity to adjudicate a
17 matter in hearing among the participants. And my goal
18 really is to present to the participants.

19 MS. BALDWIN: Uh-huh.

20 MR. EWING: So Maas...

21 MR. HINZ: Okay. So Sabine Pass facility
22 is located on approximately a thousand acres of land
23 located between the Sabine-Neches Waterway on the
24 Louisiana side.

25 MS. BALDWIN: Could you point to the

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1 waterway, just so that --

2 MR. HINZ: The waterway is this here --

3 MS. BALDWIN: Okay. Uh-huh.

4 MR. HINZ: -- between the Sabine-Neches
5 Waterway and Highway 82. This is the Louisiana side of
6 the Sabine-Neches Waterway. The facility itself has
7 five LNG storage tanks that are 160,000 cubic meters of
8 capacity, approximately 265 feet in diameter.

9 On the liquefaction side, we have four
10 essentially identical liquefaction trains at 4.5 million
11 tons nominal each. They are currently in operation and
12 we are in construction of a fifth train, which is
13 located there.

14 The export terminal is via -- and
15 originally import terminal is via the two jetties where
16 we have two -- on each jetty, we have four 16-inch
17 loading -- marine loading arms. That's essentially the
18 facility description.

19 MS. BALDWIN: So you have a waterway to
20 the left here?

21 MR. HINZ: Correct.

22 MS. BALDWIN: And then there's a highway
23 that is in yellow?

24 MR. HINZ: That's correct.

25 MS. BALDWIN: Here. Okay. And some of

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1 these other like depressions, what are -- what are
2 those? How isolated is this facility? How far is it
3 away from --

4 MR. HINZ: So if you were to go to the --
5 to the east, Johnson Bayou is about eight miles.

6 MR. BOUDREAUX: Population-wise, it's
7 closer to ten, where the population really --

8 MR. HINZ: 10 miles?

9 THE REPORTER: I didn't get --

10 MS. BALDWIN: Johnson Bayou, I think he
11 said.

12 MR. HINZ: Johnson Bayou. If you were to
13 go to the north --

14 MR. BOUDREAUX: Port Arthur.

15 MR. HINZ: -- Port Arthur, which is I
16 think 10 miles.

17 MR. BOUDREAUX: As the crow flies, it
18 would be probably six, eight.

19 MR. HINZ: Yeah, that's right. Yes, well
20 done. That's correct. And then across the
21 Sabine-Neches River is Sabine Pass itself, which --

22 MR. BOUDREAUX: Maybe one mile.

23 MR. HINZ: Maybe one mile.

24 MS. BALDWIN: Can you just identify
25 yourself again, sir, for the --

1 MR. BOUDREAUX: Yes.

2 MS. BALDWIN: -- court reporter?

3 MR. BOUDREAUX: I'm sorry. My name is
4 Layne Boudreaux. I'm the production superintendent at
5 the site, one of them.

6 MS. BALDWIN: Gotcha.

7 MR. BOUDREAUX: Just kind of helping Maas
8 out because I am familiar with the area. So as he said,
9 Sabine Pass would probably be more to the south and
10 west. It's approximately a mile, mile and a half from
11 the facility across the waterway.

12 MR. HINZ: So that would be over this way.

13 MR. BOUDREAUX: Bottom corner. Bottom
14 corner.

15 MR. HINZ: Yeah, yeah.

16 MR. BOUDREAUX: Do you mind if I point
17 this out to help him out?

18 MS. BALDWIN: Please.

19 MR. BOUDREAUX: Okay. So the Sabine Pass
20 area would be located in here. It's more -- it's kind
21 of off picture here. The Port Arthur area is off in
22 this direction. It's, as the crow flies, probably six
23 to eight miles in that direction. And the Johnson Bayou
24 community is approximately 10 miles to the east.

25 MS. BALDWIN: And the import terminals are

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1 at the bottom?

2 MR. BOUDREAUX: This is -- this is the
3 location of our --

4 MS. BALDWIN: Yeah. Gotcha.

5 MR. BOUDREAUX: -- berths, yes. And our
6 tanks and, as he said, the --

7 MR. KATCHMAR: Can you -- will you tell us
8 which is Tank 1, 2, 3, 4, 5?

9 MR. BOUDREAUX: Yes. Tank S-101 is
10 located here, 102, 103, 104 and 105.

11 MR. EWING: Thank you, Layne. Good.
12 Thanks, Maas. Thanks, Layne. It's helpful to get a
13 sense of things.

14 You don't really have scale here, but
15 hopefully you've heard this is not nestled tightly in,
16 and, in fact, that -- because there's so much space
17 available, that ultimately also addresses and begins to
18 explain particular tank design that was used for all of
19 the tanks at the facility.

20 Now I want to talk really a little bit
21 about that to set the stage for what will come. Before
22 doing that, maybe we can -- no. I'll do that now. Why
23 don't you flip to that, please?

24 Well, just let people look at that for a
25 moment just to absorb it. There's nothing much to say.

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1 You see the tanks. The orientation is -- you know,
2 north is that way. So there's a lot of foreshortening
3 obviously, but you get a sense of the scale. These
4 little bitty things are cars.

5 Close, please. Okay.

6 MR. LEMMERMAN: Is that Port Arthur in the
7 background then on the horizon?

8 MR. EWING: Well, I would have to look
9 closely. Probably.

10 Okay. Can you show us the schematic of
11 the -- what I'd like to do is somewhat sanitize, but
12 fundamentally it's useful to capture an important set of
13 points. You know, one of the things that PHMSA
14 emphasized is the same thing that we do. The words were
15 "getting to safety," and that is absolutely what this is
16 about for us. So we share that. And I think that was
17 recognized, which I think is important.

18 Another aspect of what was said is, is
19 this problem contained? And that ends up being a very
20 important framework in thinking about hazard and risk,
21 public threat.

22 We also heard a moment ago a reference to
23 learning that the LNG had escaped secondary containment.
24 And that's erroneous. And I'm not picking on that
25 phrasing, but it ends up being absolutely essential to

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1 understanding threat and absence of threat. And we'll
2 spend time with that.

3 The last thing I want to foreshadow is I
4 think we heard a lot concerning uncertainty,
5 uncertainties that drove, as we heard, a decision to
6 issue a CAO. And one of the things we can then talk
7 about is whether a CAO is the way and the tool to be
8 used to address uncertainties or is the tool to address
9 public threats of an imminent kind, because there are
10 other tools available with other standards to meet other
11 purposes.

12 So the design philosophy of a single
13 containment tank, which is the kind of tank used here,
14 is specific. It's different from second -- of, say,
15 full containment tank design. It's very specific. It's
16 the only one that's relevant to us here. There's some
17 important features that are enumerated. All of our
18 tanks are of that variety.

19 In a single containment tank, that inner
20 tank -- I'm going to come behind you, if I may. That
21 inner tank -- or what I'm referring to as the inner tank
22 here is made with a special metal with special
23 metallurgical properties that are sufficient to maintain
24 ductility -- observe -- ductility when in contact with
25 cryogenic temperatures, in this case cryogenic liquid.

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1 And you see there the outer tank, which
2 really is the outer gray there, is made of different
3 material and has a different purpose. That inner tank's
4 purpose, hence its cryogenic capabilities, is to contain
5 this material. And as noted but not quite amplified
6 earlier by our colleagues at PHMSA, this outer tank has
7 different chemical -- metallurgical properties and it's
8 designed to hold up this structure.

9 It's designed to hold in the insulating
10 material in the annulus, which is the space between the
11 inner and the outer wall. And it is designed to
12 maintain vapor pressure, which is to say this tank here
13 is not closed.

14 That's a suspended deck. Suspended deck
15 is not the roof itself, but the deck sits roughly on top
16 of that tank but allows vapor to boil off, as it's
17 called, and exit. It's designed to do that. The
18 boil-off gas is a natural -- the boiling off of gas or
19 vapor is a natural phenomena and one removes that in
20 order to maintain the cryogenic temperature of the
21 liquid. You want to keep it cold.

22 So functionally you have a significant
23 difference between the purposes of that inner tank and
24 the purposes of the outer tank, and that ends up being
25 very instructive about threat.

1 So the secondary containment for the
2 cryogenic liquid is not exhibited there. The secondary
3 containment is not the outer tank. And so when LNG --
4 if LNG and any secondary containment tank design leaves
5 the tank, it goes into secondary containment not at the
6 outer tank wall but in the secondary containment in the
7 containment basin. That is by design. That is intended
8 to be the secondary containment.

9 What is significant about that is that
10 since that is the design philosophy of the tank and the
11 tank system, having LNG in the diked area is an
12 operational upset, but that does not mean that you are
13 outside the designed parameters of the tank system from
14 a safety standpoint.

15 In fact, in this case, we never came close
16 to exceeding the safety standards associated with the
17 design capacity of the system. That's very, very
18 important to understand. We have experts who will help
19 unpack that and make that clear.

20 I think from our standpoint, it helps to
21 understand the scale also of the containment area around
22 the tank. That isn't big enough for me to demonstrate
23 that scale. It's very, very large. It is on the order
24 of 180,000 cubic meters. It is sufficient to hold well
25 over a -- the full contents of an LNG tank if all of it

1 came out and it had been filled to the brim.

2 So it is designed with specific features
3 in mind, including volume, to handle LNG coming out of
4 the inner tank. It is not meaningful that it comes out
5 of the outer tank from a safety standpoint unless there
6 are a whole bunch of other factors that contribute. And
7 we'll talk through that.

8 I think what's important to understand
9 basically, though, is that we have to look at the design
10 philosophy of this tank system in the context of the
11 specific facts of January 22nd in order to understand
12 whether or not the determination of necessity was well
13 founded.

14 That is based on an imminent likelihood of
15 serious harm to the public. That is a very important
16 standard. And when you issue a CAO, as this one was, on
17 that standard basis, you're telling the public that you
18 think there's a likelihood of serious harm to them. And
19 that is a very important bridge that was crossed by
20 PHMSA, and it was not warranted. That's why we're here.

21 So what I'd ask is maybe, Layne, if you
22 could come up. I just want to talk about a couple of
23 things relating to the timeline. And why don't you go
24 over here --

25 MR. BOUDREAUX: Sure.

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1 MR. EWING: -- so people will hear you.

2 We won't go through all of it. I didn't
3 know that Adam would do that. I appreciate that.

4 What fundamentally was happening before
5 the 23rd? Were we filling? Were we not filling? Just
6 operationally, what was going on with the tank? Were
7 we --

8 MR. BOUDREAUX: We were filling the tank
9 at the time.

10 MR. EWING: Okay. So you were filling the
11 tank?

12 MS. BALDWIN: May I ask, this is 101?

13 MR. BOUDREAUX: Tank 3.

14 MR. EWING: This is Tank 3.

15 MS. BALDWIN: Tank 3. Okay.

16 MR. EWING: The release of LNG from the
17 inner tank into the designed containment space was on
18 Tank 3.

19 MS. BALDWIN: Okay. Or 103.

20 MR. EWING: There -- it is technically
21 called S stroke 103.

22 MS. BALDWIN: Okay.

23 MR. EWING: I think for the sake of
24 brevity, if you'll allow me just to say Tank 3.

25 MS. BALDWIN: Yeah, that's fine.

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1 MR. EWING: We do.

2 MS. BALDWIN: Let's just refer to it
3 throughout the proceedings as Tank 3, okay, just for my
4 own sanity. Okay.

5 MR. EWING: Yeah. That -- they're just
6 numbered that way, 101, 102, 103, 104, 105.

7 MS. BALDWIN: Gotcha.

8 MR. EWING: Even we at the company tend to
9 say 3, 4, 5.

10 Okay. So it was filling. And just tell
11 us a little bit, when and how was a release first
12 observed?

13 MR. BOUDREAUX: We had an operator that
14 was in the area. He had a visual observation that we
15 had an issue with the tank in terms of vapor.

16 MR. EWING: Okay. What did he see?

17 MR. BOUDREAUX: He saw -- at the time he
18 observed vapor coming out of the tank. Immediately he
19 made a call to the control room.

20 MR. EWING: So what time is that that he's
21 discovering that, roughly?

22 MR. BOUDREAUX: That was 21:20
23 approximately.

24 MR. EWING: So military time. Normal
25 time, that's --

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1 MR. BOUDREAUX: 9:20.

2 MR. EWING: And -- 10:20?

3 MR. HOPTAY: 9:20.

4 MR. BOUDREAUX: 21:20 is 9:20. Is that
5 correct?

6 MR. EWING: 21:20?

7 MR. BOUDREAUX: Yes.

8 MR. EWING: Okay.

9 MR. KATCHMAR: The date.

10 MR. EWING: The 22nd.

11 MR. BOUDREAUX: The 22nd, January 22nd.

12 MR. EWING: And you said he took an
13 immediate action? What was that?

14 MR. BOUDREAUX: Immediate action was he
15 notified the control room, and which the notification to
16 the control room -- excuse me. They closed the finger
17 rack valves, which stopped rundown to the tank.

18 MR. EWING: Okay. So to translate that
19 into my terms, finger rack valve rundown, is what you're
20 saying they took the mechanical measures to stop filling
21 the tank?

22 MR. BOUDREAUX: Yes. They closed the
23 valves mechanically to stop any LNG production to that
24 tank.

25 MR. EWING: And that happened in a

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1 timeframe of minutes?

2 MR. BOUDREAUX: Minutes.

3 MR. EWING: Okay. And there was a gas
4 detection alarm --

5 MR. BOUDREAUX: Yes.

6 MR. EWING: -- going off as well from that
7 timeframe. Is that right?

8 MR. BOUDREAUX: We did have a gas
9 detection alarm approximately eight minutes after that
10 notification came in.

11 MR. EWING: So 21 --

12 MR. BOUDREAUX: 28.

13 MR. EWING: -- 28ish. Okay. And a number
14 of things then ensued. We have an emergency response
15 team as well. You've heard about PHMSA's. Was that
16 contacted and mobilized?

17 MR. BOUDREAUX: Yes. They are -- the
18 emergency response team was contacted approximately
19 21:35. Let me refer to my notes just to make sure.
20 Yes, they were activated and they were to basically
21 secure the area, make sure no personnel could get into
22 the area.

23 MR. EWING: And what happened to personnel
24 at the site? Did they go about their business or did
25 they --

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1 MR. BOUDREAUX: So --

2 MR. EWING: -- muster up?

3 MR. BOUDREAUX: Yeah. A plant emergency
4 address system was used that alerted all personnel in
5 the facility to muster. From that point, our emergency
6 management team was activated and --

7 MR. EWING: So you have a response team
8 and you have an emergency management team?

9 MR. BOUDREAUX: Yes.

10 MR. EWING: Got it.

11 MR. BOUDREAUX: And soon after the muster
12 was issued, then everybody was accounted for.

13 MR. EWING: Okay. How many people were
14 there?

15 MR. BOUDREAUX: A hundred and -- I don't
16 have the exact number. 117, I believe. Let me see if I
17 have that in my notes.

18 MR. EWING: Slightly over a hundred?

19 MR. BOUDREAUX: Slightly over a hundred.

20 MR. EWING: The count number was. And the
21 observation of material coming out of the tank, was it
22 all the way around the tank? Was it within a specific
23 area?

24 MR. BOUDREAUX: No. It was -- it was in a
25 specific area approximately -- approximate area of 50 by

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1 50 roughly so --

2 MR. EWING: Is that feet?

3 MR. BOUDREAUX: Feet. Excuse me. Feet.

4 Where ice and vaporization was observed along with some
5 Perlite. It's just real difficult to determine exactly
6 how much LNG. It wasn't like a liquid pool that you
7 could just make an observation. And that was estimated
8 to be about 39 cubic meters --

9 MR. EWING: Okay.

10 MR. BOUDREAUX: -- of LNG.

11 MR. EWING: Thank you.

12 Why don't I ask Paul to come up and we can
13 talk a little bit about the interactions with PHMSA
14 and --

15 MR. SULLIVAN: Which Paul?

16 MR. EWING: Paul Nielson.

17 MR. SULLIVAN: Oh, sorry, Paul.

18 MR. EWING: We've got too many Pauls.

19 MS. KARAUS: He's ready.

20 MR. EWING: Thanks. We're trying to
21 condense this a little bit since you've heard some of
22 it. But, Paul, remind us of your background and
23 function at the -- at the facility, the company.

24 MR. NIELSON: So I'm the manager for
25 regulatory affairs. I worked for 28 years in the

1 nuclear industry over on the operations side and ran
2 oversight.

3 MR. EWING: So you probably need to step
4 closer to a mic --

5 MR. NIELSON: Sure.

6 MR. EWING: -- is my guess. And so a
7 report was made from Sabine that night, the 22nd?

8 MR. NIELSON: That's correct.

9 MR. EWING: When?

10 MR. NIELSON: Approximately one hour after
11 the event was discovered, as Layne just talked about.

12 MR. EWING: And this was --

13 MR. NIELSON: National Response Center was
14 informed via telephone.

15 MR. EWING: Okay. And the NRC is the one
16 that distributes that knowledge --

17 MR. NIELSON: That's correct. That's --

18 MR. EWING: -- centrally.

19 MR. NIELSON: That's correct.

20 MR. EWING: And when did you first have
21 contact with PHMSA specifically or the company?

22 MR. NIELSON: So PHMSA, we were
23 contacted -- or we spoke with PHMSA the next morning, as
24 relayed earlier. Archie McKeever had a conversation
25 with Julie Halliday and also exchanged an update email

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1 with Julie Halliday the morning of the 23rd.

2 MR. EWING: And when did you first
3 visit -- when did you have a chance for Cheniere and
4 Sabine Pass to be in person visiting with PHMSA?

5 MR. NIELSON: So we visited first on the
6 evening of the 23rd, as was discussed previously. PHMSA
7 came to the Houston offices.

8 MR. EWING: All right.

9 MR. NIELSON: And we had both a
10 teleconference with FERC that evening, and we also had
11 three PHMSA personnel in our office to share information
12 on the evening of the 23rd.

13 MR. EWING: And then I think there was a
14 site visit?

15 MR. NIELSON: That is correct. On the
16 24th, the next day, there was a site visit, which
17 started in the morning. And, as was discussed earlier,
18 we had a tour, exchanged information, answered questions
19 and concluded in the afternoon.

20 MR. EWING: So that site visit involved
21 PHMSA personnel as well as Sabine personnel within a
22 couple of days walking the site?

23 MR. NIELSON: That's correct.

24 MR. EWING: Going to the tank area?

25 MR. NIELSON: That's correct.

1 MR. EWING: Did they enter the dike area?

2 MR. NIELSON: Yes, we did.

3 MR. EWING: You entered the dike area. So
4 this would suggest that this is an investigative purpose
5 as opposed to part of an emergency response to a call?

6 MR. NIELSON: That was my understanding,
7 yes.

8 MR. EWING: Would one otherwise have
9 people in a containment dike?

10 MR. NIELSON: I would not go in a
11 containment dike unless it was for investigative
12 purposes.

13 MR. EWING: Right. And what happened in
14 the dialogue with PHMSA ensuing after the visit?

15 MR. NIELSON: So --

16 MR. EWING: Was there further exchange of
17 information?

18 MR. NIELSON: There was an exchange of
19 information. As Julie discussed previously, PHMSA gave
20 us questions. We agreed on what those initial questions
21 were. That list progressed as our interactions went on
22 through the week.

23 We had several phone calls, almost daily
24 phone calls with numerous personnel on both sides, FERC
25 and PHMSA, throughout that first week. And then we had

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1 an additional site visit by the Southwest Region
2 personnel on the following Friday.

3 MR. EWING: And are questions coming in
4 from the PHMSA folks?

5 MR. NIELSON: Yes. Typically the cycle
6 would be we would have a teleconference. As we would
7 discuss information, it would generate questions. We
8 would then work on answering those questions and forward
9 that information on to PHMSA and FERC.

10 MR. EWING: And how was that done? Was
11 that managed through tracking documents and other ways
12 to maintain order in the Q and A?

13 MR. NIELSON: Yes, it was. We -- PHMSA
14 captured all the questions in a spreadsheet and would
15 forward that to us. There was some redundancy in the
16 questions, but for the most part they were -- they were
17 tracked. And then we responded to those questions as we
18 had the information available.

19 MR. EWING: And the group that is
20 assisting in responding to those questions includes lots
21 of folks?

22 MR. NIELSON: Lots of folks. We actually
23 stood up a technical team at the site, which consisted
24 of our on-site experts and also many of the -- of our
25 persons you see in the room today, Mark Bartel, Joe

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1 Hoptay, Terry Gallagher.

2 And so we have teams of people working on
3 gathering and vetting the information, making sure it
4 was correct, that we were going to -- that information
5 we were giving to PHMSA was correct that was asked for,
6 and then getting that to PHMSA.

7 MR. EWING: Was there a regular briefing
8 that occurred or a pattern of briefing?

9 MR. NIELSON: So there was -- we had a --
10 we went to a weekly meeting. We were doing weekly
11 briefings. We were also sending daily reports on the
12 status of the tanks.

13 MR. EWING: How would you characterize the
14 overall flow? It sounds pretty dynamic.

15 MR. NIELSON: Very dynamic. The questions
16 were numerous and they varied. And we did our best to
17 understand the questions and provide the answers
18 requested.

19 MR. EWING: Thank you. And did the -- did
20 further site visits occur after that initial site visit
21 within a couple of days?

22 MR. NIELSON: So we had the initial site
23 visit on Wednesday following the -- following the event.

24 MR. EWING: So the event was on a Monday?

25 MR. NIELSON: The event was on a Monday.

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1 We had the initial site visit on Wednesday. There was a
2 FERC visit on a Thursday. And then the following
3 Friday, which I believe would have been the 2nd of
4 February, we had an additional site visit from PHMSA and
5 Southwest Region personnel.

6 MR. EWING: And so the 2nd of February.
7 The date of the CAO is the 8th of February, so --

8 MR. NIELSON: Correct.

9 MR. EWING: -- a few days later.

10 Did you have communicated to you at any
11 time from PHMSA -- were you aware of anyone hearing from
12 PHMSA that they felt, for example, their lives were in
13 jeopardy while they were on our site?

14 MR. NIELSON: No, I did not.

15 MR. EWING: Did you yourself have that
16 concern?

17 MR. NIELSON: I didn't.

18 MR. EWING: Okay. Thank you.

19 On the 8th, the CAO issues -- and as we've
20 talked about, the standard for issuing that is not based
21 on uncertainty. It is based on threat. And a finding,
22 especially for a no notice CAO such as this one,
23 requires that there's an imminence and immediacy that
24 disallows even having a hearing to talk. And there has
25 to be a probability, a likelihood of serious harm to the

1 public. And so it needs to be founded on a factual
2 understanding what the mechanism would be and why that
3 threat exists at that time.

4 There are other important tools that PHMSA
5 has to deal with the exploration of uncertainties that
6 are not based on immediate likelihood of public harm.
7 And those tools are often more appropriate when one does
8 not have that threat, as we didn't here.

9 So we have four main contentions about
10 that CAO. We identified eight issues in our request for
11 hearing. But time being tight, we've tried to find a
12 way -- and I think I have -- of consolidating them into
13 four buckets, covering them, I think, in an efficient
14 way.

15 The first one is the most important.
16 Thank you. The first and I think foundational one is
17 that the CAO wasn't warranted because the incident did
18 not substantially or imminently endanger public safety,
19 did not meet that standard, given the nature as well as
20 the scope of the incident, as well as the effectiveness
21 of the design involved in the incident, the tank design,
22 and given the responsive measures that were taken as
23 well, and that this was well understood and
24 understandable before the decision to issue a CAO was
25 made.

1 The second contention is that the CAO
2 treats Tank 1 and Tank 3 as though they present the same
3 concern. They do not. There are very important
4 distinctions between them that did not justify requiring
5 the same actions in the CAO to be attributed to both of
6 them.

7 The third is that there are key safety
8 determinations -- safety-related determinations that
9 underlie the CAO that rest on material errors,
10 misunderstandings, whatever you want to call it,
11 incorrect findings and assumptions basically, about what
12 the status of the tanks and the facility was at the time
13 it was issued. And in this way, one can see, and we'll
14 go through it, these errors are errors in the very
15 factors and considerations they enumerated that led them
16 to find the hazard that they reached. So these errors
17 are material to the determination that was made.

18 And the last issue is that the information
19 request, which is embedded in the CAO, is frankly
20 impracticable, and that's a different kind of issue than
21 the other three contentions. But since this is our
22 opportunity to explore all aspects of the CAO that are
23 significant, that's one we need to address. We'll spend
24 most of our time on the first one, because this is about
25 safety as much as anything else.

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1 So with that in mind, why don't we just
2 dive into that first chapter, if you will, which is
3 whether or not there was a public safety threat
4 sufficient to issue a CAO. The legal standard, which
5 I'd like to flip up on Slide 13, this is grabbed and
6 paraphrased closely from the regs. You'll be very
7 familiar with it, but just to cast it before us.

8 Essentially there are two determinations
9 that are necessary for this type of CAO, because it was
10 issued without notice. And I've stated it a few times.
11 One of the critical differences between them or useful
12 differences is that one of those standards really
13 relates to the severity of the threat, and the other
14 really relates to the imminence of it as well as, if you
15 will, imminence and scale of threat combined. That
16 temporal element of imminence is important to the no
17 notice aspect of the CAO. And so our contention is that
18 these standards were not, in fact, met here.

19 It is illuminating, I think, to understand
20 that the events occurred on the 22nd of January. People
21 are on site within a couple of days, learning about
22 what's going on, which is not consistent with believing
23 there is an imminent likelihood of significant threat.
24 And it takes 17 days to reach a conclusion that they're
25 going to issue that CAO. There is not in the

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1 intervening period a deterioration of the condition of
2 those tanks. There is not in that period an escalation
3 of any aspect of the incident that started and stopped
4 on the 22nd of January.

5 So we want to explore that. To do that,
6 I'm going to ask Joe to join us. Joe is one of our
7 outside experts. And if you would, when you get up
8 here, introduce yourself a little bit?

9 MR. HOPTAY: I'm Joe Hoptay. I work for
10 Matrix PDM Engineering.

11 MR. EWING: There's the mic. Thanks.

12 MR. HOPTAY: Okay. I've been doing this
13 for 39 years. And I'm the manager in plate structures
14 and concrete structures for Matrix PDM.

15 MR. EWING: So I want to ask a real expert
16 as opposed to me to talk a little bit about that design
17 philosophy to get it toward flat, which is what we need
18 to do. We need to connect the two dots here. Do we get
19 to threat?

20 So remind us again in your own words as an
21 expert, what is the design philosophy that's relevant
22 here to a zero containment tank like Tank 3?

23 MS. BALDWIN: And just before you get
24 there, I'd just like to understand. So were you engaged
25 as part of the investigation into this incident or you

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1 were involved with Cheniere's design philosophy of these
2 tanks before?

3 MR. HOPTAY: No. I was engaged by
4 Cheniere after the event.

5 MS. BALDWIN: After the event.

6 MR. HOPTAY: I got on site the 29th of
7 January.

8 MS. BALDWIN: Gotcha. So he's test --
9 he's familiarized himself with the design of these tanks
10 and is testifying to that?

11 MR. EWING: He's very familiar with it.

12 MS. BALDWIN: Gotcha.

13 MR. EWING: That's right. Thank you.

14 I will note, by the way, that to the
15 extent there was a concern about expertise, we have an
16 enormous amount in the company, but we also have good
17 reach to others, and that was in play very quickly.

18 So I know the slide isn't relevant to you
19 so ignore that.

20 MR. HOPTAY: I was going to ask if you
21 could put up the slide that was up.

22 MR. EWING: Sure. Let's do that. Can you
23 put up the design slide from -- that I put out earlier?
24 It's probably 2 or 3.

25 MR. HOPTAY: That one, yes, please.

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1 MR. EWING: Thanks.

2 MR. HOPTAY: So the first thing that you
3 have to recognize, and it was brought out earlier, is
4 that there's really two structures there. There's the
5 inner tank, which is the primary container, and the
6 outer tank, which is not the container. It's just
7 the -- it's just the pressure boundary.

8 The inner tank is supported on
9 load-bearing insulation. Some of this I'm repeating,
10 but it -- it's worth mentioning. The load from the
11 inner tank is passed through that load-bearing
12 insulation directly to the outer tank or to the
13 foundation. So there's no dependence on the outer tank
14 to take the liquid flow to the foundation.

15 The outer tank is a pressure barrier and
16 an insulation jacket barrier that keeps the moisture
17 from contaminating the insulation and also prevent vapor
18 from coming out. It's a -- the outer tank is -- has a
19 dome roof and a suspended deck. That's a
20 self-supporting dome roof and the deck is nothing more
21 than a ceiling. Okay?

22 The outer tank, annular space about three
23 feet. There's fiberglass insulation on the outside of
24 the inner tank and then Perlite in the rest of the
25 annular space.

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1 MS. BALDWIN: Could I just ask a question?
2 What is the -- what is sort of the characteristic of
3 Perlite insulation? I know what fiberglass is,
4 obviously.

5 MR. HOPTAY: It's granular. It's volcanic
6 ore that's popped in a hot oven.

7 MS. BALDWIN: Okay.

8 MR. HOPTAY: And when it -- when that
9 pops, it creates a lot of interstitial spaces that work
10 very well as an insulator. It's inorganic.

11 MS. BALDWIN: So is it -- it's not
12 attached. It's just sort of --

13 MR. HOPTAY: No. It's a powder.

14 MS. BALDWIN: -- loose fill --

15 MR. HOPTAY: Right.

16 MS. BALDWIN: -- that is in the annular
17 space?

18 MR. HOPTAY: In fact, when they -- when
19 you fill it, there is -- the Perlite is filled towards
20 here. You put vibration -- basically magnets that
21 vibrate the tank --

22 MS. BALDWIN: Uh-huh.

23 MR. HOPTAY: -- and help it settle. So
24 it's like hitting the side of a sugar bowl.

25 MS. BALDWIN: So is it mixed in with the

1 fiberglass or you do the fiberglass --

2 MR. HOPTAY: No.

3 MS. BALDWIN: -- first and then you have
4 the Perlite insulation outside?

5 MR. HOPTAY: The fiber -- the fiberglass
6 is against the tank and then Perlite the rest of the
7 way. And it's actually wrapped to the tank with cables.

8 MS. BALDWIN: So it's not necessarily --
9 you said it's wrapped to the tank. Okay.

10 MR. HOPTAY: It's hung from the very top.

11 MS. BALDWIN: That does make sense.
12 Gotcha.

13 MR. HOPTAY: It's bound together, hung
14 from the top. And then to keep it against the tank, you
15 stretch a cable from the top to the bottom. As it comes
16 around, it pushes against the tank.

17 MS. BALDWIN: So it's not ultra
18 compressed?

19 MR. HOPTAY: No. You don't want it ultra
20 compressed.

21 MS. BALDWIN: Because there's space there
22 for some overflow of material?

23 MR. HOPTAY: Right. It -- the -- it's
24 much easier for things to flow -- the gas to flow
25 through the Per -- through the fiberglass than the

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1 Perlite.

2 MS. BALDWIN: Okay. Gotcha.

3 MR. HOPTAY: Perlite is much more of a
4 tortuous path.

5 MS. BALDWIN: Gotcha. Thank you.

6 MR. KATCHMAR: The cable holds the
7 fiberglass only.

8 MR. HOPTAY: Right.

9 MS. BALDWIN: The cable holds the -- yeah,
10 uh-huh.

11 MR. KATCHMAR: The fiberglass is right
12 against the inside tank and then the annular space has
13 the Perlite.

14 MS. BALDWIN: Gotcha.

15 MR. HOPTAY: Right. So the plank gets put
16 on first, wrapped. And then through the Perlite fill
17 ports, the Perlite is poured in or actually injected in
18 so...

19 MS. BALDWIN: That's helpful.

20 MR. EWING: So, Joe --

21 MR. HOPTAY: Yes.

22 MR. EWING: -- continue to tell us a
23 little about what the containment philosophy is for this
24 kind of a design.

25 MR. HOPTAY: Right. For this kind of

1 design, because the outer tank, as was mentioned
2 earlier, is not designed to take that -- it's a carbon
3 steel. It won't take cryogenic temperatures. There's a
4 remote dike.

5 Now, the dike is sized for the total
6 capacity times 110 percent. So there's -- it's not just
7 what's -- it's not just where you would normally operate
8 the tank. It's if it was at its max level and something
9 happened, and then there's 10 percent more than that.
10 And it's contained by that remote earthen dike.

11 MS. BALDWIN: Uh-huh.

12 MR. EWING: And this design, we'll talk
13 with Paul Sullivan in a moment about that. This kind of
14 a design is set to standards. Is that correct?

15 MR. HOPTAY: Yes. The 110 percent is from
16 59A.

17 MR. EWING: Okay. And 59A is the
18 NFPA 59A --

19 MR. HOPTAY: Right.

20 MR. EWING: -- which is a National Fire
21 Protection Association code --

22 MR. HOPTAY: Yes, for LNG storage.

23 MR. EWING: Good. And it's incorporated
24 by reference, the particular edition of it, into the
25 regulations?

1 MR. HOPTAY: Yeah.

2 MR. EWING: Good. Are there other
3 important things you wanted to contribute on that?

4 MR. HOPTAY: The important thing is that
5 you have two separate structures. The primary
6 container, the LNG tank, has not had any problems. It
7 was designed -- it's functioned as it is. It's an
8 operational consideration that caused this problem, not
9 a containment problem of the primary container.

10 MR. EWING: So I want to explore that one
11 more sec and then maybe ask Paul to come up and expand
12 on that. We're talking about an operational issue as
13 opposed to -- shall I call it a structural issue --

14 MR. HOPTAY: Yes.

15 MR. EWING: -- or an issue as to the
16 integrity of the containment?

17 MR. HOPTAY: Correct. The primary
18 container, the inner tank, shows no evidence of having
19 any problems throughout the period of operation. It has
20 been not shown to have any concerns.

21 MR. EWING: And the secondary containment
22 would not be that outer tank wall. That secondary
23 containment would be the dike?

24 MR. HOPTAY: Right. You -- can you pull
25 up the second -- there you go.

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1 This area right here around each tank is
2 the -- is the dike that is intended to contain the
3 spilled LNG --

4 MR. EWING: Okay. And --

5 MR. HOPTAY: -- if there was a
6 catastrophic leak.

7 MR. EWING: Forgive me. Was there any
8 evidence that the secondary containment had any
9 structural or integrity issues?

10 MR. HOPTAY: Not to my knowledge.

11 MR. EWING: All right. And we'll explore
12 that some more. Thank you very much.

13 MR. HOPTAY: You're welcome.

14 MR. EWING: I think it would be useful to
15 talk to Paul Sullivan, who is another expert and is
16 going to help us bridge from this design concept and
17 these issues toward hazard and assessment of hazard,
18 because that's the underlying basis for a no action CAO,
19 so --

20 MR. SULLIVAN: It's really me this time.

21 MR. EWING: It is you, Mr. Sullivan.

22 MR. SULLIVAN: So I'm Paul Sullivan. I'm
23 a consultant to Cheniere, external consult -- I'm an
24 independent consultant, operating in LNG and LNG tank
25 design and construction for the last 30-odd years,

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1 somewhat similar to Joe but a little bit older. And so
2 what I've been asked to discuss with you here --

3 MR. EWING: Could I pause and just a
4 little bit more introduction --

5 MR. SULLIVAN: Sure.

6 MR. EWING: -- to set the groundwork a
7 little bit, Paul?

8 MR. SULLIVAN: Sure.

9 MR. EWING: Do you work on standard
10 setting organizations in relation to LNG?

11 MR. SULLIVAN: Yeah, which is what I would
12 introduce there. I've operated internationally for
13 large companies, WorleyParsons, companies of that type,
14 British Gas. And I happen to have become involved in
15 code committees in many parts of the world.

16 So the Euronorm, the International
17 Standards Organization, the development of concrete
18 technology for cryogenic tanks and the like. And I've
19 done that over the last 20-odd years. I have -- was an
20 observer frequently at the NFPA 59A proceedings and at
21 the -- at the Canadian Standards Association as well.

22 So, you know, I look at this as being a
23 broad base. Obviously we work exclusively on NFPA here
24 in the United States, but the NFPA is used quite
25 frequently internationally as well.

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1 So -- but what we find is actually that in
2 an overall sense, in terms of hazard and hazard
3 assessment in terms of dealing with the potential for
4 incidents to happen, you know, the potential for danger
5 to the public, most of the international standards, when
6 you actually work them out back to back, they end up as
7 roughly the same. There's not a huge differential
8 between them. And the issue with the design of LNG
9 tanks, particularly of design of incidents involving
10 the -- involving LNG releases is very similar.

11 What we're looking at in an overall sense
12 is probably from the point of view of any failure of an
13 inner tank, a hypothetical situation, but in terms of
14 other appurtenances and other issues, you know,
15 incidents which have happened in the past. And what
16 we're looking at is the protection of the personnel on
17 site and the protection of the general public. So from
18 that point of view, we postulate certain situations
19 occurring, which in actual fact have not really occurred
20 in the historic sense, but they could occur.

21 Now, what we look at firstly is the
22 vapor escape, the escape of vapor, so either the escape
23 of LNG into a secondary containment system, as we have
24 here, and what happens with that vapor when it goes in
25 there. You know, it comes to ambient temperature. It's

1 a light -- lighter than air gas methane so it will
2 vaporize and it will rise and eventually a cloud will be
3 created.

4 Potentially we then are asked to look
5 at -- by all standards, we're asked to look at the
6 potential that a source of ignition might occur, in
7 which case we will have a fire on the -- on the vapor
8 cloud. I mean, it's a very interesting fire to see.
9 It's very, very odd. It burns like a candle.

10 So your issue is here that we have to make
11 allowances for any of those two occurrences. That's
12 required by the code. And what we've determined over
13 the years in terms of, you know, the movement of vapor
14 clouds or the thermal effect of a vapor cloud, which
15 is -- it reaches an ignition source, is what the effects
16 of that are in relation to external areas which are not
17 controlled by the -- by the project, by the company.

18 And what is determined is that we want to
19 keep that incident and its potential effect on the -- on
20 the external population or external facilities inside
21 the boundaries of the site. And that is how this site
22 is designed. It's a requirement. It's a FERC
23 requirement. It's a PHMSA requirement, obviously. And
24 so, therefore, the site has been, you know, well
25 designed in accordance with the appropriate codes.

1 MR. EWING: May I ask you, you were
2 getting right to the issue of exclusion zone and
3 exclusion zone analysis?

4 MR. SULLIVAN: Yeah.

5 MR. EWING: Tell me succinctly for the
6 non-technical, what is an exclusion zone? And then
7 begin to just tell us about how it doesn't -- an
8 analysis of exclusion zone without doing calculations,
9 but tell us a little --

10 MR. SULLIVAN: Oh, no. I leave the
11 calculations to people brighter than me. And I've
12 always got some great young engineers to do that, you
13 know. But -- so the exclusion zone, you know, as, you
14 know, it was described earlier, I think, by Paul, as,
15 you know, where you would probably go.

16 We have the -- we have the effect that --
17 under normal operating conditions, we have, you know,
18 certain procedures within the -- within the organization
19 to deal with people's access to certain areas. And, you
20 know, we have -- we have -- if you want to say various,
21 you know, both company and other -- and other issues
22 associated with that.

23 But when we're talking about an
24 incident -- this is really what you're getting at, I
25 think, on exclusion zones. When we're talking about an

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1 incident, we're talking about the effect of a vapor
2 release. So, therefore, we're looking at, you know,
3 potentially a pool of LNG or else methane escaping, as
4 we had here, through the outside -- you know, through
5 the outside tank through the fissures that were created
6 through the cracks that were created.

7 And there are calculations which are
8 developed in relation to the likely distance of that
9 vapor, that vapor cloud, to the source -- the source of
10 methane or to the source of LNG. So the calculations
11 involved with that are relative -- for the very bright
12 people who do them, are relatively straightforward
13 calculations. And that's what creates the issues that
14 were down here. I mean, what I saw here was that
15 clearly a calculation is carried out by the team, the
16 engineer. And they set these safety barriers back to
17 sort of deal with the specifics of this -- of this
18 spill.

19 But if we had, for instance -- nobody has
20 ever explained to me how this could eventually happen
21 and -- but if we eventually had suddenly the incidence
22 of the removal of the inner tank -- I don't know what it
23 is. Aliens from space want 9 percent nickel and they
24 pull the whole inner tank away. It all spills into the
25 dike.

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1 Now we've got a massive, massive, you
2 know, potentially hundred -- you know, if the tanks are
3 full, 160,000 cubic meters of LNG sitting inside that
4 bund. And what has been determined there is, you know,
5 what would happen with that as a vapor cloud. So we
6 would have clearance distances, which are clearly
7 directed by the code.

8 If it -- if it found an ignition source,
9 which if we fill the whole dike, it probably would find
10 an ignition source. If we did that, then we'd have a
11 massive pool fire, which have been well modeled. My
12 old -- my old company, BG, we did a lot of that modeling
13 and produced many of the -- of the -- I suppose the
14 standard calculations that go with that.

15 And they -- and what they do is they
16 determine what the heated source is, where it's actually
17 burning off, and then come out in increasing sort of
18 lines of heat flux, which in the U.S. they're sort of
19 Btu's as a parameter for foot squared. Anyway, 1600 is
20 the relevant number that we're all looking for to be
21 maintained within the site.

22 We will have evacuated the site by now, I
23 might add, but -- so what you're looking at is, is there
24 any danger to the public outside the boundary? And when
25 we look at the 1600 figure, that all is contained within

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1 the boundary and the -- you know, the issues are --
2 these design issues come up always in the permitting
3 phase.

4 I've permitted many items for FERC at
5 times in the U.S., and this is always one of the key --
6 one of the key factors. This is --

7 MR. EWING: So, Joe (sic), what you're
8 describing in summary is that the exclusions on analysis
9 looks at what you might call a worst case scenario --

10 MR. SULLIVAN: A really worst case.

11 MR. EWING: -- a full release --

12 MR. SULLIVAN: Yeah.

13 MR. EWING: -- in the specific
14 configuration of the facility, the landscape features,
15 the range of expected weather --

16 MR. SULLIVAN: Yeah.

17 MR. EWING: -- the wind direction and so
18 forth to assure everyone prior to the construction, much
19 less operation of this, that if the entire dike were
20 actually filled to its design capacity, there would
21 still not be an off-site threat?

22 MR. SULLIVAN: Correct.

23 MR. EWING: All right. I think you've
24 learned a bit about the nature and scale of the release
25 that we're talking about on the 22nd of January. Would

1 one have, as part of an exclusion zone analysis,
2 conducted calculations for such a small release?

3 MR. SULLIVAN: You would -- you would
4 after the event inevitably because what you're looking
5 at is to say, you know, are we 40 feet away from it?
6 Are we 50 feet away from it? Where do we erect the
7 safety barriers, which is what they eventually did on
8 the site.

9 MR. EWING: And the barriers are on the
10 site?

11 MR. SULLIVAN: Yeah. Oh, well, very much
12 so. I mean, this is -- I mean, you think about the
13 capacity of these bunds, right, you go from upwards on
14 200,000 cubic meters of volume and about five -- about
15 five meters deep. And you look at the 40 meters of
16 potential spill and you see the scale. I'm not
17 diminishing the importance of the incident. I'm merely
18 just stating that is an extremely small leak.

19 MR. EWING: And I think the linkage is
20 important to hazard. So what this design philosophy
21 allows, with the exclusion zone analysis and the codes
22 that apply, is a level of confidence and a level of
23 certainty that I want you to express about how to gauge
24 the threat posed by an incident of the nature and
25 magnitude of the 22nd of January.

1 MR. SULLIVAN: It -- I mean, I don't want
2 to diminish the incident, but what I would say is in
3 terms of the safety aspect of the incident, it is a
4 relatively small spill. There have been spills like
5 this before that I've dealt with in my previous career,
6 which had nothing to do with the inside of tanks, but
7 maybe to do with valves on the roof and some escape
8 there in quantities of similar amounts.

9 And, in fact, in general, even with a
10 liquids spill on a roof, which is going into a general
11 containment area like that, we hardly ever see liquid on
12 the ground. It sort of vaporizes as it's coming down.

13 I mean, this is -- you know, these
14 quantities and at these -- at these levels of leakage
15 are extremely small. And you've got to look at what the
16 ambient temperature is around and realize that in many
17 cases you're not going to get any spillage on the ground
18 here. You probably got it because of the escape -- the
19 initial escape with the Perlite from the site, having
20 seen the pictures. I have not seen the site so I'm --
21 I'm holding my hand up here and saying just looking at
22 pictures. So it's an extremely small -- extremely small
23 spill.

24 MR. EWING: And so is your conclusion --
25 what is your conclusion about the threat posed by that

1 particular event on the 22nd?

2 MR. SULLIVAN: Well, there's no --
3 there's absolutely no danger to the public. And
4 clearly, you know, competent operators would ensure that
5 there's no danger to their operatives.

6 MR. EWING: Thank you.

7 Ordinarily we would now turn to the rest
8 of our discussion, but it involves additional details,
9 proprietary information and other restricted information
10 that we would need to discuss with you. We've tried
11 hard to sort of keep this general enough that everyone
12 could benefit from it, but we need to get into the
13 details.

14 MS. BALDWIN: So I have a couple of
15 questions. Can you make this available to our -- the
16 individuals on the phone?

17 MR. EWING: To whom? I'm sorry.

18 MS. BALDWIN: To Julie and to Joe so that
19 they can have the benefit of --

20 MR. EWING: Well --

21 MS. BALDWIN: -- of this, because I will
22 allow it --

23 MR. EWING: When would you like that to
24 happen?

25 MS. BALDWIN: Well, we're going to come up

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1 here on our break pretty soon, but I did want, before we
2 did our -- we had our break, to see if OPS had any
3 questions of the witnesses that you've presented or
4 any -- anything that you'd like to ask.

5 MR. PHILLIPS: Yes, we will. You want to
6 do it now --

7 MS. BALDWIN: Okay. So it's --

8 MR. PHILLIPS: -- or should we try to --

9 MS. BALDWIN: -- 11:06. Yeah, I think
10 that we have -- we have some time.

11 MR. PHILLIPS: Okay.

12 MS. BALDWIN: So if you have just some
13 general questions on this before we move into the
14 proprietary area.

15 MR. PHILLIPS: Okay. Yeah.

16 MR. EWING: If we could keep it framed
17 within the bounds.

18 MR. PHILLIPS: Sure. Yeah, yeah. No,
19 we --

20 MR. EWING: I'd appreciate that.

21 MR. PHILLIPS: And if so, I mean,
22 essentially I'll try to keep it to Joe and Paul --

23 MR. EWING: Yeah.

24 MR. PHILLIPS: -- so we'll even limit it
25 to them, if that works.

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1 MS. BALDWIN: Yeah, that's fine.

2 MR. PHILLIPS: Okay. I think we got this
3 information for Joe. Joe, you were engaged -- I'm
4 sorry. Joe, you were engaged on the 29th. Is that
5 right?

6 MR. HOPTAY: That's when I showed up at
7 the site.

8 MR. PHILLIPS: Subsequent to the incident?

9 MS. BALDWIN: And we're talking --

10 MR. PHILLIPS: I apologize.

11 MS. BALDWIN: We're talking to Joe --

12 MR. HOPTAY: Hoptay.

13 MR. EWING: Hoptay.

14 MS. BALDWIN: There we go.

15 MR. PHILLIPS: Yes. Thank you. Sorry.
16 You don't have to -- you don't have to stand up.

17 MR. HOPTAY: Good.

18 MR. PHILLIPS: For my purposes, I should
19 say.

20 MR. HOPTAY: Yeah.

21 MR. PHILLIPS: And, Paul -- I forget your
22 last name, Paul.

23 MR. SULLIVAN: Sullivan.

24 MR. EWING: Sullivan.

25 MR. PHILLIPS: Sullivan. Joe -- Paul,

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1 when were you engaged?

2 MR. SULLIVAN: Last week.

3 MR. PHILLIPS: Last week --

4 MR. SULLIVAN: Yeah.

5 MR. PHILLIPS: -- for this incident as
6 well, subsequent to the incident?

7 MR. SULLIVAN: Yeah. But I -- sorry. I
8 should correct that. I was approached about two weeks
9 ago.

10 MR. PHILLIPS: Okay.

11 MR. SULLIVAN: And we eventually got there
12 last week.

13 MR. PHILLIPS: Gotcha. Absolutely. Paul,
14 I wanted to ask you one question just -- you mentioned
15 you didn't want to minimize the incident?

16 MR. SULLIVAN: Yeah.

17 MR. PHILLIPS: Can I ask you why? And I
18 know that's a little open-ended.

19 MR. SULLIVAN: Well, any escape of liquid,
20 any crack -- cracked tank, the escape of liquid or gas
21 is a serious incident and is treated as such, but it's
22 treated as such within the context of --

23 MR. PHILLIPS: Absolutely.

24 MR. SULLIVAN: -- of the codes.

25 MR. PHILLIPS: Yes, absolutely.

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1 Understood. I appreciate it. Thank you.

2 And, Joe, you made a comment. And maybe I
3 just heard it wrong and I just want to clarify it. You
4 mentioned that the inner tank operated as designed --

5 MR. HOPTAY: Yes.

6 MR. PHILLIPS: -- as far as you've seen?

7 MR. HOPTAY: The tank, yes.

8 MR. PHILLIPS: The tank itself. Okay.

9 MR. HOPTAY: The container, the physical
10 container.

11 MR. PHILLIPS: Right. Okay. Now, is
12 there -- so there were escapes into the annulus from the
13 inner tanks on what sounds like at least 1, 2 and 3? So
14 are the escapes designed -- I mean, are the escapes of
15 LNG designed?

16 MR. HOPTAY: Could --

17 MR. PHILLIPS: And maybe it's a lawyer --
18 I'm a lawyer. So, again, I don't -- I didn't know
19 enough math to be an engineer --

20 MR. EWING: May I --

21 MR. PHILLIPS: -- but --

22 MR. EWING: May I suggest something?

23 MR. PHILLIPS: Sure.

24 MR. EWING: There's a good answer to that
25 that we would like to provide. I don't try to get in

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1 the way, but --

2 MR. PHILLIPS: Sure.

3 MR. EWING: -- it would require the level
4 of detail --

5 MR. PHILLIPS: The next step?

6 MR. EWING: -- that we need to discuss.

7 MR. PHILLIPS: Okay.

8 MR. EWING: So we'd like to answer that
9 question --

10 MR. PHILLIPS: Understood.

11 MR. EWING: -- affirmatively.

12 MR. PHILLIPS: Okay. But just so I
13 understood, you were saying as far as you -- you know,
14 since you were engaged, as far as you've looked at,
15 everything you've seen about the inner tanks were
16 operating as designed? The purpose -- the purpose for
17 which they were designed has been consistent, nothing
18 has shifted --

19 MR. HOPTAY: Correct.

20 MR. PHILLIPS: -- or operated erroneously?

21 Okay. All right. And just -- and this is
22 a general question, and I'll prob -- I'll pose it to
23 you, Kevin, and knowing that, you know, you can, of
24 course, farm it out to anybody who you feel it's
25 appropriate to.

1 Is it the contention, as far as we've seen
2 now without having gone into anything proprietary, that
3 escapes from the outer tank are not safety concerns?

4 MR. EWING: No, that is not the
5 contention. The contention is in relation to the
6 threshold needed to issue a CAO.

7 MR. PHILLIPS: Uh-huh.

8 MR. EWING: As you saw from our own
9 response to the event, this operational upset has
10 consequences, needs to be understood, needs to be
11 isolated and dealt with, all of which was accomplished.
12 And I think you would agree with that.

13 So our contention is that the CAO was
14 improperly issued because it rests on two, ultimately,
15 determinations -- you can combine them if you will of
16 necessity -- that are based on a threat and an imminence
17 of likely harm that is not supported by the evidence.

18 MR. PHILLIPS: Okay. So it's --

19 MR. EWING: That is our contention.

20 MR. PHILLIPS: So it's not a question of
21 the safety concern of the LNG escaping the outer tank,
22 which seemingly would not be within the purpose of its
23 design, understanding that you're saying that the outer
24 tank is not part of -- is not meant to contain LNG?

25 MR. EWING: May I --

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1 MR. PHILLIPS: Am I saying that correct?

2 MR. EWING: Not quite. So conceptually
3 I'll answer it and we can explain that in more detail
4 after we --

5 MR. PHILLIPS: Sure.

6 MR. EWING: -- have a further
7 discussion --

8 MR. PHILLIPS: Sure.

9 MR. EWING: -- on details.

10 MS. BALDWIN: Ms. Halliday, do you have
11 any questions at this point? I'll also give you an
12 opportunity later on to speak.

13 MS. HALLIDAY: Yeah. I guess just to make
14 a couple points. When Joe talked about the purpose of
15 the outer tank, so what he presented was correct, but
16 there's also the structural purpose. It's supporting
17 the roof and it's also protecting the inner tank.

18 And that's when -- back on January 31st,
19 we had requested, based on, you know, our structural
20 expert asking that, you know, they do a stress analysis
21 on the tank, that -- you know, we wanted to make sure it
22 wasn't damaged to the point where there could be
23 potential escalating or cascading effects, you know, if
24 those cracks continued to propagate in that there was,
25 you know, some sort of -- the structural integrity of

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1 that outer tank was potentially at risk that, you know,
2 what would be then the cascading effects of the failure
3 of that tank, the outer tank, on the inner tank?

4 So, you know, I think there's just more to
5 it than, well, if the LNG all came out, it would be in
6 the tank. You also have the potential of -- you know,
7 he did mention ignition. A pool fire of that sort is
8 extremely, extremely hot. And if you have that dike
9 full of all the LNG, that fire is going to burn. There
10 is really no way to put out, you know, an entire tank
11 of -- or entire dike of LNG. That's going to burn for I
12 don't know how many days, months. It would be a really
13 long time.

14 So -- and you're at the point also where,
15 you know, as Adam mentioned, Tank 1 and Tank 3 have
16 vapors emitting continuously and it's uncontrolled.
17 It's -- you know, you -- the wind blows. It's going to
18 blow a different direction. You -- there was not an
19 understanding of the rate at which the LNG is emitting.

20 So I'm just saying that there was
21 certainly more uncertainty as to how to control the
22 vapors that were being emitted and uncertainty as to
23 understanding what the condition of Tank 103 -- the
24 structural condition of that tank was.

25 MR. PHILLIPS: And, Julie, if I could ask

1 you a question. You mentioned before and Paul
2 mentioned -- Paul Nielson mentioned that when you were
3 on site, you know, you were in the -- I believe it was
4 within the dike.

5 Did you subsequently learn anything that
6 made you concerned about -- a concern for your safety
7 having been on site that day?

8 MS. HALLIDAY: You know, I don't think
9 until I got up to it and saw the size of the cracks
10 that, I guess, comprehended, gosh, what -- you know,
11 what is the situation of this tank right now? Can those
12 cracks continue to propagate?

13 You know, you're at that cryogenic
14 temperature still. You have the ice balls forming. I
15 don't think that I appreciated it until I was close
16 enough -- because I hadn't seen pictures of it, until I
17 was close enough to see it to realize the extent of the
18 cracking.

19 MR. PHILLIPS: Okay. Thank you.

20 MR. EWING: So those are questions I want
21 to be able to answer. And we have had to tailor, with
22 some unhappiness, our presentations this morning to make
23 them able to be presented in a public sphere. And we
24 have now run up against the limitation of that, because
25 we would like to address those questions and frankly

1 would like to have addressed them freely and comfortably
2 and of our own volition up front.

3 MR. PHILLIPS: We have at least one more
4 question we'd like to try to get an answer to, if
5 that --

6 MS. BALDWIN: Okay. Well, we're at 11:15
7 now, so just very, very briefly, because I would like --

8 MR. PHILLIPS: Yeah.

9 MS. BALDWIN: -- everyone to have an
10 opportunity for a morning break.

11 MR. PHILLIPS: Fair. Okay.

12 MS. STEVENS: Okay. So I just had a
13 follow-up question for -- was it Joe and Paul who helped
14 Cheniere make the determination that there was no longer
15 a hazard?

16 MR. EWING: Actually a lot of people are
17 involved in that decision, judgment and assessment.
18 Paul has been engaged -- for example, he's the gentleman
19 right behind me -- has been engaged to try to help us
20 explain at this hearing what the relationship is between
21 the design and the standards and the way one looks at
22 hazard. That's a purpose that's particular to this
23 hearing.

24 Other experts here, some of whom you've
25 heard from, more I hope to be able to present to you,

1 have been engaged indeed to help illuminate structural
2 issues, evaluate them, help us understand them, and
3 particularly to help you understand them and now
4 ultimately also the presiding officer, so it varies.

5 MS. STEVENS: I mean, and when did
6 Cheniere make the determination that this wasn't a
7 hazard?

8 MR. EWING: We would love to be able to talk
9 about that --

10 MS. STEVENS: Okay.

11 MR. EWING: -- in detail.

12 MS. STEVENS: Okay.

13 MS. BALDWIN: Okay. So I'm going to
14 adjourn this matter until 11:30. And when we reconvene,
15 we'll have a closed portion. So there is a room that we
16 will let members of the public have access to. I will
17 hear what the material is and if it's considered
18 confidential, and then will make a determination as to
19 whether or not and when we can open to --

20 I only intend to go until 12:30. We will
21 have a lunch break from 12:30 to 1:30 and then resume at
22 that time. So I will answer your question after I --

23 MR. KLUMP: It's Edward Klump with
24 E&E News. I just want to put on the record that I want
25 to object on First Amendment grounds for being asked to

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1 leave.

2 MS. BALDWIN: I --

3 MR. KLUMP: I just want to put that on the
4 record.

5 MS. BALDWIN: I appreciate that.

6 MR. EWING: And would he state his name,
7 please?

8 MR. KLUMP: Yeah. Edward Klump with
9 E&E News.

10 MR. EWING: Thank you.

11 MS. BALDWIN: So I'm going to adjourn the
12 hearing at this time. It's 11:17. We'll be back here
13 at 11:30.

14 (Recess from 11:17 a.m. to 11:47 a.m.)

15 (Closed to public)

16 MS. BALDWIN: Let's go back on the
17 record. This -- it's --

18 MS. DAUGHERTY: 11:47.

19 MS. BALDWIN: It's 11:47. So, again, it's
20 my intention for us to go until 12:30. We'll have a
21 break until 1:30, and then we'll come back here and pick
22 up where we left off.

23 Can we have the people on the phone
24 introduce themselves again?

25 MS. HALLIDAY: Julie Halliday.

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1 MS. WHITE: Senth White.

2 MR. SIEVE: And Joe Sieve with PHMSA.

3 MS. BALDWIN: Okay. So these are all
4 PHMSA parties that are on the phone. And then our
5 esteemed colleagues from the Coast Guard, would you mind
6 introducing yourselves just so we --

7 LIEUTENANT COMMANDER SMITH: Hi. I'm
8 Lieutenant Commander Dallas Smith. I run the Liquefied
9 Gas Carrier National Center of Expertise in Port Arthur,
10 Texas, for the Coast Guard.

11 COMMANDER O'BRIEN: Good morning. I'm
12 Commander Loan O'Brien. I'm at the Marine Safety Unit,
13 Port Arthur. I am the prevention department head where
14 I oversee the Marine safety both with facility and
15 vessel inspections, as well as do Marine casualty
16 investigations.

17 MS. BALDWIN: Thank you. I appreciate it.

18 So when we closed, I believe, PHMSA, we --
19 you had -- okay. So we're going to turn back again to
20 Cheniere. And then after you've completed your
21 presentation, then I'll allow some more questions
22 from --

23 MR. PHILLIPS: Thank you.

24 MS. BALDWIN: But I did ask. Were you
25 able to provide your presentation or any of that to our

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1 colleagues on the phone?

2 MR. EWING: So we have not done that yet.

3 MS. BALDWIN: Okay. All right.

4 MR. EWING: Let's discuss that. I didn't
5 also know the outcome of this --

6 MS. BALDWIN: Sure. I understand.

7 MR. EWING: -- where we would be.

8 MS. BALDWIN: Yes.

9 MR. EWING: I also have no means of
10 getting it to them. I don't have addresses, but
11 presumably someone here in the room does.

12 MR. PHILLIPS: If you would -- would you
13 email it to me? I could forward it to Julie.

14 MR. EWING: Okay.

15 MS. SINGH: I am not connected to the
16 Internet here.

17 MS. BALDWIN: Or you can just --

18 MR. PROTHRO: I can do a --

19 MS. BALDWIN: -- give her --

20 MR. PROTHRO: I can do a thumb drive if
21 you want.

22 MR. EWING: Let's not do a thumb drive.

23 MS. BALDWIN: I mean, I think --

24 MR. EWING: Do we have WiFi in here or
25 some --

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1 MR. LEMMERMAN: Yeah. I've got an
2 Internet connection up. I can send it.

3 MR. EWING: Oh, good.

4 MS. BALDWIN: Okay.

5 MR. LEMMERMAN: I just need to find it.

6 MR. EWING: Good. But you have that, too,
7 right?

8 MR. LEMMERMAN: She doesn't have Internet
9 access.

10 MS. BALDWIN: Do you need a thumb drive?

11 MR. PROTHRO: You want a thumb drive? I
12 can get a new one. That way there's nothing on it.

13 MS. BALDWIN: And then you can just
14 return --

15 MR. LEMMERMAN: Yes, sir. Thank you.

16 MS. BALDWIN: -- the thumb drive to her.

17 So, again, we'll send these only to the people --

18 MR. LEMMERMAN: Yeah.

19 MS. BALDWIN: -- that are on the --

20 MS. SINGH: I can --

21 MS. BALDWIN: All right. Let's go off for
22 just a second.

23 (Brief discussion off the record.)

24 MS. BALDWIN: We're going to get started
25 again. We were passing out handouts and trying to

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1 get electronic copies to our physical staff. So that
2 appears to have happened now and --

3 MR. EWING: But it only went to Julie to
4 the extent that -- there are two others, I believe.

5 MS. BALDWIN: I don't know if they're in
6 the same space. But, Julie, you can also share them
7 with Senthoo and Joe.

8 MR. EWING: Yeah. Maybe she has the
9 emails.

10 MS. BALDWIN: Yes.

11 MS. HALLIDAY: I'll send it now.

12 MS. BALDWIN: Yeah.

13 MR. EWING: Thank you very much, Julie.

14 MS. BALDWIN: And they can just follow
15 along.

16 Okay. So it looks like we're settled.
17 All right.

18 Mr. Ewing.

19 MR. EWING: Thank you very much. There
20 were a set of statements and issues and concerns right
21 before we broke for our midmorning, late morning break
22 that I want to take up again so that we can talk about
23 them.

24 At the outset, [REDACTED]
[REDACTED]

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[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] So let's get some facts out there about
that.

That's confidential for a number of
reasons, which we can elaborate if ever necessary, but
very important. And so I'll ask Layne to go through
that. There are a number of people, but I think he's
got the facts at hand.

So, Layne, can you just come up?

MR. BOUDREAUX: Sure.

MR. EWING: And I think what I'm -- what I
think would be most instructive is Tank 3 first, then
Tank 1 starting at, say, the 22nd and a few dates
thereafter, inventory level.

MR. BOUDREAUX: Okay.

MR. EWING: On Tank 3 first.

MR. BOUDREAUX: Okay. So [REDACTED]

[REDACTED]. On [REDACTED] --

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1 MR. EWING: Hold on. Sorry. And that --
2 that's before -- that's on [REDACTED]

3 [REDACTED] --

4 MR. BOUDREAUX: That was an [REDACTED]

5 [REDACTED].

6 MR. EWING: The amount. Okay.

7 MR. BOUDREAUX: Okay. [REDACTED]

8 [REDACTED]

9 [REDACTED]

10 [REDACTED]

11 MR. EWING: So the [REDACTED]

12 [REDACTED]?

13 MR. BOUDREAUX: Right.

14 MR. EWING: And it was, if you will, a

15 [REDACTED]

16 [REDACTED]

17 [REDACTED]?

18 MR. BOUDREAUX: And [REDACTED]

19 [REDACTED]

20 [REDACTED] --

21 MR. EWING: Okay.

22 MR. BOUDREAUX: -- with some slight
23 fluctuation there.

24 MR. EWING: All right. Thank you. And
25 then on Tank 1?

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1 MR. BOUDREAUX: Okay. I'll start with the
2 [REDACTED].

3 MR. EWING: Excuse me.

4 MR. BOUDREAUX: On the [REDACTED], we had about
5 [REDACTED] in that tank.

6 MR. EWING: Okay.

7 MR. BOUDREAUX: On the [REDACTED]
[REDACTED]. At that point we [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

12 MR. EWING: And [REDACTED]
[REDACTED] quote, [REDACTED]?

14 MR. BOUDREAUX: So that was -- [REDACTED]
15 was [REDACTED]. So it was [REDACTED]. On [REDACTED]
[REDACTED]
[REDACTED].

18 MR. EWING: Comparable to Tank 3?

19 MR. BOUDREAUX: Comparable to Tank 3, and
20 we've held it there since.

21 MR. EWING: Okay. So, in essence, on
22 Tank 3, [REDACTED]

[REDACTED]
[REDACTED] --

25 MR. BOUDREAUX: That's correct.

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1 MR. EWING: -- [REDACTED]

2 MR. BOUDREAUX: That's correct.

3 MR. EWING: And then on [REDACTED]

4 [REDACTED]

5 [REDACTED] and a [REDACTED]

6 [REDACTED]

7 I think what we wanted to do is make sure

8 that you are [REDACTED]

9 [REDACTED]

10 [REDACTED] Okay?

11 And they were [REDACTED]

12 [REDACTED]

13 [REDACTED]

14 [REDACTED].

15 I think that's all. Thanks, Layne.

16 MR. KATCHMAR: Excuse me.

17 MR. EWING: Yeah.

18 MR. LEMMERMAN: Could you change
19 percentages to feet, please? What is [REDACTED]?

20 MR. BOUDREAUX: Sure. [REDACTED] -- I
21 don't have that one right in front of me.

22 MS. KARAUS: Would it be helpful if you've
23 got five minutes to sit down and do those
24 calculations --

25 MR. BOUDREAUX: Give me five minutes just

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1 to calculate those back for you.

2 MR. KATCHMAR: Sure.

3 MR. EWING: And actually that was my
4 request. I had asked for percentages. I thought it
5 would be most meaningful, but yes.

6 MR. PHILLIPS: Blame it on the lawyers.

7 MS. KARAUS: Yes.

8 MR. EWING: There's also a -- [REDACTED]
[REDACTED], you do that -- you do not do that

10 [REDACTED] You want to do that [REDACTED]
[REDACTED]. You just need to

12 [REDACTED]
[REDACTED]
[REDACTED].

15 So the [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

19 MS. BALDWIN: Uh-huh.

20 MR. EWING: And I don't have that at hand,
21 but I think that's probably well understood.

22 MS. BALDWIN: So [REDACTED]
[REDACTED]

24 MR. EWING: I have trouble hearing you,
25 ma'am.

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1 MS. BALDWIN: [REDACTED]

3 MR. EWING: That is correct.

4 MS. BALDWIN: Okay.

5 MR. EWING: Good. The other aspect of
6 that and the reason for talking about [REDACTED]

12 That's not in the scope of what the facts
13 on the ground here would have permitted to happen, [REDACTED]
14 [REDACTED], right side of the
15 bowtie, but because of the [REDACTED]
16 [REDACTED] So that -- I want to be clear
17 about that.

18 On the record in public, I would also --
19 if we can get back to that at the appropriate time, I
20 would like to make some general statement to that effect
21 that is explanatory, not argumentative but explanatory,
22 without perhaps the same precision around the numbers.

23 MS. BALDWIN: Okay.

24 MR. BOUDREAUX: I have them ready when --

25 MR. EWING: Oh, good.

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1 MR. BOUDREAUX: Okay. So [REDACTED]

2 [REDACTED]

3 [REDACTED]

4 MR. KATCHMAR: [REDACTED]

5 MR. BOUDREAUX: [REDACTED]

6 [REDACTED] And then [REDACTED]

7 [REDACTED] So just -- I was trying

8 to put that in perspective.

9 MR. KATCHMAR: So [REDACTED] would

10 be --

11 MR. BOUDREAUX: [REDACTED] is about

12 where we're at on that range, and [REDACTED]

13 [REDACTED].

14 Tank 4, we were --

15 MR. KATCHMAR: [REDACTED].

16 MS. BALDWIN: He said Tank 1.

17 MR. BOUDREAUX: I'm sorry. Tank 1. I

18 looked at the 4.

19 MR. KATCHMAR: [REDACTED], isn't it?

20 MR. BOUDREAUX: [REDACTED] at -- on the [REDACTED]

21 [REDACTED]

22 [REDACTED] --

23 MR. KATCHMAR: Whoa, whoa. So on the --

24 you said [REDACTED]. What was that? [REDACTED]?

25 MS. BALDWIN: [REDACTED].

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1 MR. KATCHMAR: [REDACTED]?

2 MR. BOUDREAUX: [REDACTED].

3 MR. KATCHMAR: And then on [REDACTED]

4 [REDACTED] you said?

5 MR. BOUDREAUX: [REDACTED].

6 MR. KATCHMAR: And then, again, [REDACTED]

7 [REDACTED]

8 MR. BOUDREAUX: Is [REDACTED]

9 [REDACTED]

10 [REDACTED]

11 MR. KATCHMAR: Okay.

12 MR. BOUDREAUX: Does that answer --

13 MR. KATCHMAR: Thank you, sir.

14 MR. EWING: Thanks, Layne.

15 Another area of interest and concern that

16 was expressed -- this is a longer discussion -- relates

17 to the issue, Julie, that I didn't feel I could raise

18 earlier because then I wouldn't be able to explain

19 fully, so I'm glad you raised it, and that has to do

20 with the concern that you have about [REDACTED]

21 [REDACTED]

22 [REDACTED]

23 That's my shorthand rendition of what I

24 believe Julie was raising, but let me -- I do want to

25 address that. But I also want to know, Julie, is that a

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1 fair articulation of the concern?

2 MS. HALLIDAY: Right. That was the
3 request we made that, you know, a finite element
4 analysis be performed so that there was an understanding
5 of what the potential -- you know, what were the

6 [REDACTED]
7 [REDACTED]
8 propagate?

9 MR. EWING: Got it. Thank you. I just
10 wanted to be sure that we would be responsive. So I'd
11 like to ask Mark to come on up. And as you get to the
12 mic, why don't you introduce yourself briefly. And I
13 may ask for more, but let's just sort of -- let's get
14 rolling.

15 MR. BARTEL: Sure. My name is Mark
16 Bartel. I'm a metallurgical consultant with Stress
17 Engineering. I've been with Stress since 2008. And
18 before that, I worked for Industry from 1982 until 2008.

19 MR. EWING: All right. Would it be fair
20 to say that the area in which your expertise lies in
21 which you function right now relates to metallurgical
22 integrity structure?

23 MR. BARTEL: Yes, sir.

24 MR. EWING: Very good. So our intention
25 in having Mark here is, in fact, to be able to address

1 these concerns and perhaps others, but mainly this one.
2 So let me start simple and then we'll get quickly into
3 the meat of it.

4 In broad terms, [REDACTED]
5 [REDACTED] that we're positing or
6 exploring for a moment, that is to say, [REDACTED]
7 [REDACTED]
8 [REDACTED] we
9 need to remember that ultimately, even if that happened,

10 [REDACTED]
11 [REDACTED]
12 [REDACTED]
13 [REDACTED]

14 And from a safety standpoint or hazard
15 analysis standpoint, it needs to be then looked at [REDACTED]

16 [REDACTED]
17 [REDACTED]

18 So with that predicate, tell us a little
19 bit about your [REDACTED]

20 [REDACTED]
21 [REDACTED]

22 MR. BARTEL: From a metallurgical
23 perspective only, not a finite element analysis, which
24 is not my area.

25 MR. EWING: Yeah. Thank you. And if you

1 could step closer --

2 MR. BARTEL: Sure.

3 MR. EWING: -- they will probably hear you
4 better, too.

5 MR. BARTEL: Sure.

6 MR. EWING: Thanks.

7 MR. BARTEL: I was first communicated with
8 on the [REDACTED] by Cheniere. I visited the site
9 for the first time on the [REDACTED]. And at that
10 time I was informed that one of the concerns that was
11 voiced by PHMSA was the [REDACTED]
12 [REDACTED]

13 My understanding -- the understanding that
14 I had at the time is that there was some amount of LNG
15 that had entered not only Tank 3 but Tanks 2 and 1 and
16 that the tanks had reacted differently to those episodes
17 and that Tank 3 was currently [REDACTED]
18 [REDACTED]

19 My -- earlier today, actually on both
20 sides of this discussion, it has been mentioned that
21 there have been episodes of LNG entering the annular
22 space and that -- to my knowledge, at this point only
23 Tank 3 has [REDACTED]
24 [REDACTED] which released LNG into the secondary
25 containment.

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1 As far as catastrophic failure of Tank 3,
2 what we have to keep in mind here is that the tank has
3 already demonstrated its ability -- though it is
4 obviously not designed to withstand the cold
5 temperatures of LNG, the fact that it is refrigerated to
6 LNG temperatures does not necessarily mean that it is
7 going to suffer a catastrophic failure.

8 Understand that the location that was
9 refrigerated on these tanks is within the area -- an
10 isolated area on each of the three tanks as evidenced
11 by -- we have not shown the side view of the four zones,
12 but --

13 MR. EWING: We haven't, but I would like
14 to do that now.

15 MR. BARTEL: Okay. Because it just
16 helps --

17 MR. EWING: I completely agree. We did
18 not show it earlier because of some of the features that
19 are --

20 MR. BARTEL: Would be --

21 MR. EWING: -- not appropriate for
22 everyone. There's a larger one perhaps. Well, yeah.
23 Terrific. Thank you.

24 MR. BARTEL: So in the -- in the context
25 of -- this is not a global event to where the entirety

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1 of the outer tank is exposed to cryogenic liquid. It's
2 a very isolated location. And these four zones
3 represent the four cracks which have been discussed
4 previously.

5 MR. PHILLIPS: Can --

6 MR. EWING: Adam?

7 MR. PHILLIPS: Can I ask just a quick
8 question --

9 MR. BARTEL: Please.

10 MR. PHILLIPS: -- about what zone means?

11 Is zone only being used for purpose of --
12 you're talking about the cracked zones essentially?
13 It's not like a predetermined --

14 MR. BARTEL: That was Cheniere's --

15 MR. EWING: Yes, that's correct.

16 MR. PHILLIPS: Okay. So it's not -- this
17 is not --

18 MR. BARTEL: Yeah. That's not Stress
19 Engineering's --

20 MR. PHILLIPS: Right. Okay.

21 MR. KATCHMAR: Well, is it from here to
22 here or is it here, here, here and here?

23 MR. BARTEL: Those are -- those are four
24 distinct locations.

25 MR. KATCHMAR: So I'm good in between 3

1 and 4 there and I'm good in between 2 and 3 and I'm good
2 in between 1 and 2?

3 MR. BARTEL: Yes, sir.

4 MR. PHILLIPS: Okay. Thank you. Sorry to
5 interrupt.

6 MR. BARTEL: Oh, no.

7 MR. EWING: That graphic, however, is
8 conceptual in the shape and precise dimensions --

9 MR. PHILLIPS: Right. No. I'm with you.

10 MR. KATCHMAR: I understand it.

11 MR. BARTEL: And obviously --

12 MR. KATCHMAR: That's where the crack is.

13 MR. BARTEL: Obviously there's no visual
14 cue from this distance that there are issues in those
15 areas not only because of ice build-up, because of --
16 but because of their size relative to the overall size
17 of the tank.

18 So in my business, what you need to
19 understand about a material that has been refrigerated
20 below where it was intended to be designed is, how
21 global is that refrigeration?

22 And back to what the tank has demonstrated
23 for everyone here in this room and on the phone is that
24 it was able to -- even though it was refrigerated,
25 Tank 3 was able to stop those cracks because in brittle

1 fracture, one of the -- and Stress Engineering was
2 chartered to produce a White Paper, which we did, and
3 was simultaneously sent to both PHMSA and to Cheniere.

4 That White Paper concluded that -- you
5 know, that [REDACTED]

6 [REDACTED]

7 [REDACTED]

8 [REDACTED]

9 [REDACTED]

10 What we see demonstrated on Tank No. 3
11 with those four isolated zones of cracking is that in
12 brittle fracture there has been investigative work that
13 talk about [REDACTED]

14 [REDACTED]

15 [REDACTED] And so just to understand, [REDACTED]

16 [REDACTED]

17 So in comparison to even a [REDACTED]
18 [REDACTED] in the
19 types of potential scenarios that have been discussed.

20 MR. EWING: So I wanted to put that in my
21 terms for a second.

22 MR. BARTEL: Sure.

23 MR. EWING: You're saying the [REDACTED]

24 [REDACTED]

25 [REDACTED]?

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1 MR. BARTEL: The --

2 MR. EWING: And then --

3 MR. BARTEL: The [REDACTED] --

4 [REDACTED] --

5 MR. EWING: Yeah.

6 MR. BARTEL: -- because you would be
7 unable to sense from not there to there.

8 MR. EWING: And that then sets up a
9 question, which I think you should be driving toward
10 also in your review here. Why would it end where it
11 does, and what's the potential that it would continue to
12 incrementally or otherwise get bigger?

13 MR. BARTEL: Yes. Once I had arrived at
14 the site, one of the other understandings beyond the LNG
15 events was that no crack growth had occurred over that
16 period of time from the 22nd of January to my arrival at
17 the site on the [REDACTED].

18 The [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED] Even though it likely [REDACTED]
[REDACTED]
[REDACTED]

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[REDACTED]

[REDACTED].

MR. EWING: And we may have a picture -- it's a little hard to see it but maybe it's big enough -- where you can see a little --

MR. BARTEL: Zone 4, Nishita. And if you can blow that up once you have that field picture.

MR. EWING: This -- this --

MR. BARTEL: So stage --

MR. EWING: Pause. Pause for a minute. Let me explain this for a second. I haven't handed this out, but it clearly just now occurred to me that it might be useful. It didn't make my cut originally so this was in my backup. But hearing this, I think it might be informative to you. And I apologize I haven't sent it to you, but we'll figure out a way to do that.

So I just wanted to explain to you that this is not in front of you in paper not deliberately, but I think it's informative. So thank you, Mark.

MR. BARTEL: And you can -- you can blow up the upper corner by where the tape measure is.

MS. SINGH: I can -- I can try --

MR. KATCHMAR: Enlarge that picture, please.

MR. BARTEL: Oh.

1 MS. DAUGHERTY: We don't use those words.

2 MR. BARTEL: And I'd love a laser pointer,
3 but that doesn't help -- that doesn't help the --

4 MS. SINGH: A pen?

5 MR. EWING: No.

6 MR. BARTEL: Oh.

7 MR. EWING: It doesn't click.

8 MR. PHILLIPS: It will work. Just keep
9 clicking. Here. Just erase it.

10 MR. BARTEL: So for those on the phone,
11 there is -- [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] And I can't read -- I can't read the tape

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1 measure. It looks like it's -- it was -- its dimension
2 is [REDACTED]

3 [REDACTED]
4 [REDACTED]
5 And so the reason for that slide is to
6 show that that is why Stress Engineering surmised that

7 [REDACTED]
8 [REDACTED]
9 [REDACTED]
10 [REDACTED]
11 [REDACTED]

12 So understand that this material, we don't
13 know what temperature it was at, [REDACTED]

14 [REDACTED]
15 [REDACTED]

16 MR. EWING: Can you elaborate a bit on the
17 further potential -- once you've observed that the

18 [REDACTED]
19 [REDACTED] It was
20 [REDACTED]. That
21 happened [REDACTED].

22 Can you then help us -- lead us forward.
23 What is the potential for further cracking either along
24 the same lines or elsewhere in subsequent days and weeks
25 or whatever it may be?

1 MR. BARTEL: And we would pretty quickly
2 move out of my expertise and so --

3 MR. EWING: We can talk to --

4 MR. BARTEL: Yes. So in the [REDACTED]
[REDACTED], we're looking at that evidence.
6 From there, [REDACTED]

11 Because there was no indication of [REDACTED]

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED] I did not have a concern over, let's say [REDACTED]
[REDACTED]
[REDACTED]

18 MR. EWING: So that gets toward
19 conclusions that you've drawn. And there's a slide,
20 No. 19, that at a very basic summary level tries to
21 express that.

22 Can you give us some degree of confidence
23 level even in subjective terms or whatever terms you
24 wish about this? Was this a difficult decision to come
25 to in terms of -- well, a difficult decision to come to

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1 in assessing the continued structural integrity of the
2 outer tank as opposed to its susceptibility to
3 catastrophic failure that would have a cascading effect?

4 MR. BARTEL: Could you simplify that
5 question, please?

6 MR. EWING: I don't -- I'll do that. Good
7 man. What conclusion did you reach?

8 MR. BARTEL: That the tank was not at risk
9 of catastrophic failure.

10 MR. EWING: And what is your rough
11 confidence level about that conclusion?

12 MR. BARTEL: To this day, the same. I'm
13 highly confident that Tank 3 is stable.

14 MR. EWING: Thank you. So I would suggest
15 we might have further discussion of questions that might
16 be useful while he's up there.

17 MS. BALDWIN: Do you have any?

18 MR. EWING: Okay.

19 MR. PHILLIPS: I would have one question.

20 MR. BARTEL: Sure. Please.

21 MR. PHILLIPS: Mark, is your determination
22 that Tank 3 is stable contingent essentially on
23 conditions remaining as they are?

24 MR. BARTEL: Those being a de-inventoried
25 tank --

1 MR. PHILLIPS: Right.

2 MR. BARTEL: -- that -- Kevin, I'm being
3 asked to speculate.

4 MR. PHILLIPS: It is.

5 MR. EWING: Yeah.

6 MR. BARTEL: Understand this. What I
7 understand is that the [REDACTED]

8 [REDACTED].

9 MR. PHILLIPS: Right.

10 MR. BARTEL: [REDACTED]

11 MR. PHILLIPS: Right.

12 MR. BARTEL: -- [REDACTED]

13 [REDACTED]
14 MR. PHILLIPS: Right.

15 MR. BARTEL: -- as we've shown.

16 MR. PHILLIPS: I understand.

17 MR. BARTEL: At least in Zone 4.

18 MR. PHILLIPS: Right.

19 MR. BARTEL: And so the answer to your
20 question is really it was in -- from a load standpoint,
21 I would defer to Matrix and Joe Hoptay as to the
22 function of the outer tank.

23 MR. EWING: There's a --

24 MR. BARTEL: I don't really want to -- I
25 don't really want to stray into that, how different the

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1 stresses are between a de-inventoried level and a
2 100 percent level. That's just outside of --

3 MR. EWING: So I'll ask Joe up in a
4 second.

5 MR. PHILLIPS: No problem. No problem.

6 MR. BARTEL: Is that --

7 MR. PHILLIPS: I think so. I think -- let
8 me confer with people who are smarter than me.

9 MS. BALDWIN: Julie, do you guys have any
10 questions on the phone while we wait for the --

11 MS. HALLIDAY: Yeah. I guess one. I just
12 want to point out to -- we'd requested, you know, this
13 analysis back on February 2nd and I see the report dated
14 February 21st. So there was, I guess, several weeks, a
15 month that went by before you had the understanding of
16 what the current situation was in Tank 3.

17 And my guess would be that, you know,
18 those [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] Right? I

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1 mean, we've --

2 MR. PHILLIPS: Can you --

3 MS. HALLIDAY: We still have this [REDACTED]

4 [REDACTED]

5 [REDACTED]

6 [REDACTED]

7 [REDACTED]

8 [REDACTED]

9 [REDACTED] Right? You're still working on

10 that root cause analysis as to how all of these things

11 have happened?

12 MR. PHILLIPS: And if I could ask that as

13 a question, if you don't mind.

14 Julie, understanding that we heard from

15 Mark that [REDACTED]

16 [REDACTED]

17 [REDACTED], are you satisfied that we have

18 enough information to be confident that we essentially

19 could change the conditions of the Tank 3 as they are

20 and still not experience future cracking? Did that make

21 sense?

22 MR. EWING: Yeah. I'm so glad that I'm

23 not the only lawyer who can --

24 MR. PHILLIPS: Yeah.

25 MR. EWING: -- have trouble

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1 with questions.

2 MR. PHILLIPS: We twist words. That's
3 what we do.

4 Julie, did we lose you?

5 MS. HALLIDAY: Nope. I'm here. I'm
6 following you.

7 MR. PHILLIPS: Oh, okay. Oh, I'm
8 asking -- so -- okay. I'm sorry. I was -- I was asking
9 you that. Are you confident that --

10 MS. HALLIDAY: Oh. Oh, I'm sorry. I
11 thought you were asking them.

12 MR. PHILLIPS: No worries. No worries.
13 Are you confident, having heard what you've heard
14 today -- and, again, this -- we didn't have this.

15 Knowing that we didn't have this before
16 the CAO was issued, knowing that we do have it now even,
17 are you still confident that if the conditions were to
18 essentially go back to what they were on Tank 3 that
19 we -- or that there could not be the potential for
20 future cracking?

21 MS. HALLIDAY: I think as long as, you
22 know, they aren't operating that tank and it's just
23 being maintained in the fashion that it is today, it's
24 not going to continue to crack. You've removed those
25 things that could make it crack.

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1 What I haven't seen yet -- and, granted, I
2 haven't gone through all the material since I was out --
3 is that finite analysis that determines what is the area
4 that will be -- that was impacted on the tank so when --
5 you now need to understand what part of that tank needs
6 to be removed and replaced per, you know, the standards
7 that say, you know, "This is an area where the steel has
8 not been impacted." I haven't seen that finite analysis
9 yet.

10 MR. PHILLIPS: Okay. Thank you.

11 MR. KATCHMAR: Yeah. I got one other
12 question. Could you put that slide back up of the tank
13 with the four zones on it?

14 MS. SINGH: Yes. Give me a moment to find
15 the slide number on that one.

16 MR. EWING: And I'd love when you're done
17 to just quickly add something to what Julie just said.

18 MR. KATCHMAR: Go ahead. Go ahead.

19 MR. EWING: Well, I didn't mean to
20 interrupt.

21 MR. KATCHMAR: No, no. That's okay. Go
22 ahead.

23 MR. EWING: I can get in the queue here.

24 MR. KATCHMAR: I can keep my thought.

25 MR. EWING: Good. I'll put a marker down

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1 for discussion later so we're not delaying. An
2 important element of our contention, and it's very
3 important to us, is there's a difference between tools
4 that are available to the agency. One does not need a
5 CAO -- one does not need this CAO in order to ensure
6 that, for example, de-inventorying takes place, finite
7 element analysis or RCFA's -- root cause failure
8 analysis is conducted, et cetera.

9 So the absence of this CAO does not mean
10 that those things don't happen. It does not mean that
11 those things wouldn't necessarily happen without a
12 different tool being in place as between the agency and
13 us.

14 This tool, however, required a threat
15 finding and it is that aspect of it, more than the
16 corrective actions, that is our concern. We feel that
17 that threat finding is unsupported and was unsupported
18 at the time.

19 So I just wanted to clarify that. The --
20 there is -- there should not be a concern that had this
21 CAO not been issued we would be operating Tank 3 and not
22 doing a root cause analysis, any of this sort of thing.
23 That's not our contention, nor would it be our
24 contention that it would have been prudent and wise for
25 us to do that.

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1 Our contention is that this particular
2 mechanism with engaging us has a predicate finding that
3 is less about uncertainty and is entirely about public
4 threat and that's the aspect of it predominantly that is
5 our grave concern. We believe that part of it is
6 unfounded. I want to be clear about that.

7 We can talk about the other tools a little
8 later to help elaborate and illuminate that important
9 difference. So with that said --

10 MS. STEVENS: Okay. Was -- okay. Julie,
11 was it presented to you at any point during your
12 communications with Cheniere that there was a plan for
13 them to bring Tank 3 back into service before they did
14 this analysis, before this analysis was performed?

15 MS. HALLIDAY: Repeat the question one
16 more time. I want to make sure I answer correctly what
17 you're asking.

18 MR. KATCHMAR: Okay.

19 MS. STEVENS: Pete's going to ask it.
20 It's a little more technical and I can --

21 MR. KATCHMAR: So --

22 MS. HALLIDAY: Okay.

23 MR. KATCHMAR: So, Julie, on your
24 timeline, there's a -- [REDACTED], there is
25 an item that discusses the [REDACTED]

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1 [REDACTED] --

2 MS. HALLIDAY: Yeah.

3 MR. KATCHMAR: -- [REDACTED] Can you --
4 can you elaborate on that a little bit?

5 MS. HALLIDAY: Sure. So from Cheniere,
6 the way I understood it is that [REDACTED]

7 [REDACTED]

8 [REDACTED]

9 [REDACTED]

10 [REDACTED] And that's going to [REDACTED].

11 But their -- what they were presenting to
12 me is that they [REDACTED]

13 [REDACTED]

14 [REDACTED]

15 [REDACTED]

16 [REDACTED]

17 [REDACTED]

18 [REDACTED]

19 So you would need the -- [REDACTED]

20 [REDACTED]

21 [REDACTED]

22 [REDACTED] So you're going to be -- you

23 know, what's -- we still haven't done that -- we still

24 don't know those answers as to exactly why that LNG got

25 into the annular space, [REDACTED]

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1 [REDACTED].

2 MR. KATCHMAR: Thank you. The question I
3 had was Zone 2 and 3 appear to be fairly close together
4 with Zone 1 being further apart than -- and Zone 4 being
5 further apart.

6 Had we splashed LNG on that area a second
7 time, hypothetically, what -- do we think that perhaps
8 those cracks might have interconnected?

9 MR. EWING: I think that's best directed
10 to a different expert --

11 MR. KATCHMAR: That's fine.

12 MR. EWING: -- with those limitations.

13 MR. KATCHMAR: We're actually --

14 MR. HINZ: I do think it might be a
15 question for Mark. So the question -- sorry. Can you
16 ask the question again? I do think it's directed to
17 Mark.

18 MS. BALDWIN: So I think he's asking if,
19 as Julie said, [REDACTED]

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

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1 Could that have exacerbated the cracking
2 that you observed here?

3 MR. EWING: That is a hypothetical
4 question --

5 MR. KATCHMAR: But at the time --

6 MR. EWING: Do you mind answering it?

7 MR. BARTEL: One more time do I mind
8 answering it?

9 MR. EWING: No. That is a hypothetical
10 question.

11 MR. BARTEL: That is a hypothetical.

12 MR. EWING: Is that within your --

13 MR. BARTEL: That was -- that's not a
14 question that I was asked to hypothesize on.

15 MR. EWING: Right.

16 MS. BALDWIN: Well, I just have -- okay.
17 So I just -- I have just a couple of questions just --

18 MR. BARTEL: Sure.

19 MS. BALDWIN: -- about your testimony thus
20 far. So the kinds of cracks that we're seeing on
21 Tank 3, they're considered to be brittle?

22 MR. BARTEL: Brittle fracture.

23 MS. BALDWIN: Brittle fractures, meaning
24 that you have sort of a hundred percent confidence that
25 they were caused because the outer tank was in contact

1 with temperatures that were too low?

2 MR. BARTEL: Okay. That -- in the context
3 of the information I'm getting --

4 MS. BALDWIN: Right.

5 MR. BARTEL: -- and, you know, the fact
6 that [REDACTED]

7 [REDACTED]

8 [REDACTED]

9 [REDACTED]

10 [REDACTED]

11 MS. BALDWIN: So the part that I'm trying
12 to understand is -- well, you testified before that with

13 [REDACTED],

14 you know, [REDACTED]

15 [REDACTED]

16 [REDACTED]

17 [REDACTED] well, I guess ultimately what I'm

18 trying to understand [REDACTED]

19 [REDACTED]

20 [REDACTED]?

21 [REDACTED] --

22 MR. BARTEL: I came in --

23 MS. BALDWIN: -- or [REDACTED]

24 MR. BARTEL: [REDACTED]

25 [REDACTED]

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1 MS. BALDWIN: Okay. So you got
2 information from Cheniere that January 22nd is when they
3 observed the material. So is it possible sort of in the
4 confines of this argument that this [REDACTED]
[REDACTED]
[REDACTED], or is it the
7 nature of the cracks that they would have had to have
8 occurred sort of instantaneously right when you started
9 seeing the product escape?

10 MR. BARTEL: That speaks to a lot of
11 things so --

12 MR. EWING: Yeah. I think --

13 MS. BALDWIN: I'm just asking you to sort
14 of expand on the nature of what -- this is testimony not
15 necessarily just within the confines of this accident.
16 I'm just trying to understand from his testimony what
17 the nature of the crack -- like --

18 MR. EWING: Did it originate from the LNG
19 release on the 22nd --

20 MS. BALDWIN: Correct.

21 MR. EWING: -- or could it have been there
22 previously or something?

23 MS. BALDWIN: Correct. How you would
24 observe this kind of crack. I mean, brittle -- to me,
25 brittle means, you know, it's brittle. A brittle

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1 fracture to me is kind of an oxymoron in that it
2 couldn't have occurred over a period of time.

3 So I'm just trying to understand if what
4 you're saying is that this happened -- instantaneously
5 the crack happened and it was arrested because the tank
6 warmed up, or is it possible, given the circumstances
7 and the information that you know, that this was a slow
8 crack that just became bad enough to actually breach the
9 space as of January 22nd?

10 MR. EWING: Do you have an opinion on
11 that?

12 MR. BARTEL: I do.

13 MR. EWING: Please.

14 MR. BARTEL: Again, understand that [REDACTED]
[REDACTED]
[REDACTED]

17 MS. BALDWIN: Okay.

18 MR. BARTEL: And [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED] --

24 MS. BALDWIN: So you were --

25 MR. BARTEL: -- cryogenic episodes.

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1 MS. BALDWIN: You were made aware that
2 there were [REDACTED] --

3 MR. BARTEL: On --

4 MS. BALDWIN: -- tanks that did not result
5 in cracks?

6 MR. BARTEL: You know, [REDACTED]

7 [REDACTED]
8 [REDACTED]
9 [REDACTED] That would have to be handled by Cheniere.

10 But that -- you know, but that [REDACTED]
11 [REDACTED]
12 [REDACTED]
13 [REDACTED]
14 [REDACTED]
15 [REDACTED]

16 And so that gets to, you know, [REDACTED]
17 [REDACTED]
18 [REDACTED]
19 [REDACTED]
20 [REDACTED]
21 [REDACTED]
22 [REDACTED]
23 [REDACTED]
24 [REDACTED]
25 [REDACTED]

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MS. BALDWIN: Would that have any effect on your hypothesis that the tank is now stable, that the cracks will not exacerbate over time, that they'll just return to their former elasticity?

MR. BARTEL: You know, that -- you know, metallurgical discussion, it's understood that a material that's been refrigerated --

MS. BALDWIN: Uh-huh.

MR. BARTEL: -- has more than one property that changes as it's refrigerated if it is these kinds of materials.

MS. BALDWIN: Okay.

MR. BARTEL: When it is warmed back to the temperatures that it's designed to be operated at, they recover -- they recover those changes and properties that occurred while they were refrigerated.

MS. BALDWIN: But do they recover in as stable as a form is what I --

MR. BARTEL: Stable?

MS. BALDWIN: Do they return to their former stability? And this is, you know, just a totally --

1 MR. BARTEL: Define --

2 MS. BALDWIN: -- just a commonsense
3 question.

4 MR. BARTEL: I would --

5 MS. BALDWIN: So if you have a --

6 MR. BARTEL: I would ask you to define
7 stability.

8 MS. BALDWIN: Say it was a slow crack.

9 MR. BARTEL: Okay.

10 MS. BALDWIN: Okay? And it happened over
11 a period of time and the tank warmed up and the cracking
12 arrested. When you return that tank to service, do you
13 have a vulnerability at the site of the former cracks or
14 does it return to its pre-cracked state? Is it more
15 vulnerability -- is it more vulnerable to a future
16 event?

17 MR. EWING: May I interject one thing and
18 then I'll --

19 MS. BALDWIN: Sure.

20 MR. EWING: -- ask him to answer, but hold
21 your thought for a second.

22 MS. BALDWIN: Uh-huh.

23 MR. EWING: I just want you to know as you
24 explore your interest, which is important to explore,
25 that the predicate or the premise of your question is

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1 that there would be no repair work done. Right? And
2 that we would --

3 MS. BALDWIN: Well, no. I'm -- what I'm
4 really just trying to --

5 MR. EWING: -- allow this to come back
6 into operation.

7 MS. BALDWIN: I'm really just trying to
8 test the -- you know, I'm -- [REDACTED]

9 [REDACTED]
10 [REDACTED].

11 So, I mean, just a commonsense question
12 would be that we -- [REDACTED]

13 [REDACTED]
14 [REDACTED]
15 [REDACTED]
16 [REDACTED]

17 MR. EWING: And I think --

18 MS. BALDWIN: -- the threat. I'm just --
19 again, I'm just asking questions about the testimony
20 that he gave.

21 MR. EWING: I think that that goes heavily
22 to what is the mechanism that generates this
23 phenomenon --

24 MS. BALDWIN: Sure. And is it --

25 MR. EWING: -- which is -- which we

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1 haven't explored yet.

2 MS. BALDWIN: That's what I'm -- yeah.

3 That's what I'm just trying to understand.

4 MR. EWING: We've love to do that.

5 MS. BALDWIN: But one last question and

6 I'll just --

7 MR. BARTEL: Well, I --

8 MS. BALDWIN: I'm getting far afield now.

9 What confidence do -- you have that if you class -- you
10 classified this again as, like, a brittle fracture.

11 What confidence do you have that that's actually the
12 case?

13 Could it -- what -- if you could put a
14 percentage on it or you have an idea. Give me an idea
15 of --

16 MS. KARAUS: May I just point something
17 out? I understand your interest in the science behind
18 this because I share the same interest, but it appears
19 to me that the CAO presented us a preliminary finding
20 that these cracks did propagate quickly.

21 And so I'm wondering if there's -- if
22 maybe there's someone at PHMSA -- OPS who has a
23 different opinion now. But if that opinion has changed,
24 it would be worth exploring.

25 MR. EWING: Yeah.

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1 MR. KATCHMAR: I've got an additional
2 question.

3 MR. PHILLIPS: Oh. Well, we were --

4 MR. KATCHMAR: Oh, let's finish this one?

5 MR. PHILLIPS: We're not adjusting our
6 preliminary findings related to this.

7 MR. KATCHMAR: Oh, no, not at all.

8 MR. PHILLIPS: I'm just listening to them.
9 Yeah.

10 MR. EWING: I don't -- I think maybe I can
11 summarize my understanding because we're both laypeople
12 when it comes to the answer. Right?

13 I think what Mark was suggesting there
14 that -- [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]. And
18 [REDACTED], the word that you didn't
19 use.

20 MR. BARTEL: I -- and I would not use.

21 MR. EWING: Okay. Then there we go. You
22 pick the words that you like to use.

23 MR. BARTEL: Yeah, yeah, because the
24 material -- the material today is the material that it
25 was when it was fabricated on site back in 2000 and --

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1 MR. HOPTAY: '6.

2 MR. BARTEL: -- '6. So to pull your word

3

4

5

6

7 MS. BALDWIN: Uh-huh.

8

9

MR. BARTEL: -- which I think speaks to
where you're trying to get at --

10

MS. BALDWIN: Yes.

11

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MR. BARTEL: -- it is -- it is more
typical -- and, again, the White Paper broaches this
subject because we understand it's what's in the mind of
PHMSA, and it's in the mind of Cheniere as well, that

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So in
answer -- so I believe that answers your question. So

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MS. BALDWIN: Okay. That's fine. That's what I was asking.

5

MR. BARTEL: Does that -- does that --

6

MS. BALDWIN: That's fine. Yes.

7

MR. EWING: Yeah.

8

MS. BALDWIN: We are woefully beyond our stopping -- our stopping time. I don't want anyone to despair of ever getting a lunch, but I -- if there are any more questions for this particular witness, I -- either on the phone or here, I ask that you --

13

MR. KATCHMAR: Yeah, I do have a question. Can you go to the crack -- the Y-looking crack, Zone 4?

15

MR. BARTEL: Is that Zone 4?

16

MR. KATCHMAR: We actually prefer Zone 2 --

18

MS. BALDWIN: I don't think we have that.

19

MR. KATCHMAR: -- if that's possible.

20

MS. BALDWIN: The picture is not on here. I think it was --

22

MR. KATCHMAR: It was on the other one.

23

MS. BALDWIN: Mr. Ewing --

24

MR. EWING: She has it in the back of hers here. This was --

25

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1 MS. SINGH: Referring to --

2 MR. KATCHMAR: Okay. So --

3 MS. HALLIDAY: Kristin, if I could just

4 ask a question. Mark, did you also -- were you also

5 asked to look at any of the [REDACTED]

6 [REDACTED] in

7 the -- for the outer tank, and do you believe that that

8 [REDACTED]? I'm sorry.

9 MR. BARTEL: We can clarify that.

10 MR. KATCHMAR: That was my exact question.

11 MR. BARTEL: We are discussing Tank 3 on
12 the phone, Julie, I believe.

13 MS. BALDWIN: Yes.

14 MR. KATCHMAR: Yes.

15 MS. HALLIDAY: Well, I think that --
16 right. We -- you could extend that to Tank 1 as well,
17 you know, that we have concerns that that [REDACTED]

18 [REDACTED]
19 [REDACTED], that that's why these vapors are
20 continuing to emit.

21 So there is for some reason vapors
22 communicating from inside the tank to outside the tank
23 through the [REDACTED]

24 [REDACTED] that vapor
25 is emitting.

1 Is that -- were you asked also to look at
2 the structural impact -- potential impact on how those
3 failures --

4 MR. BARTEL: May I answer Tank 3?

5 MR. EWING: Yeah.

6 MR. BARTEL: In the photographs, which are
7 the slide that's up on the screen now -- for those on
8 the phone is what we called Zone 2. And this [REDACTED]

9 [REDACTED]
10 [REDACTED]. So in each location where the [REDACTED]
11 [REDACTED]
12 [REDACTED] --

13 MR. KATCHMAR: But do you know --

14 MR. BARTEL: -- in answer to your
15 question.

16 MR. KATCHMAR: Do you -- do you have a
17 answer for [REDACTED]
18 [REDACTED]

19 MR. BARTEL: I do not [REDACTED]
20 [REDACTED]

21 MR. KATCHMAR: How far could it go?

22 MR. BARTEL: The [REDACTED]
23 [REDACTED] -- Joe Hoptay?

24 MR. KATCHMAR: Thickness?

25 MR. BARTEL: It is -- it is [REDACTED]

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1 thick.

2 MR. EWING: What we don't know is we don't
3 know how [REDACTED] --

4 MR. BARTEL: I do not.

5 MR. KATCHMAR: Okay. But let me ask this
6 question. Is the tank built with the same wall
7 thickness of steel all the way up?

8 MR. BARTEL: [REDACTED]

9 MR. KATCHMAR: Okay. [REDACTED]
[REDACTED]

11 MR. BARTEL: The [REDACTED] is this
12 [REDACTED] and --

13 MR. KATCHMAR: Okay. Is there a way that
14 you can analyze the crack and say it had to have this
15 much force to get this far through that thick plate?

16 MR. BARTEL: There would -- there would be
17 a tremendous number of assumptions.

18 MR. KATCHMAR: Okay. But then, you know,
19 if it went that far through that thick plate, which
20 is -- what are we talking?

21 MR. BARTEL: [REDACTED]

22 MR. KATCHMAR: [REDACTED]
[REDACTED]

24 MR. BARTEL: [REDACTED].

25 MR. KATCHMAR: [REDACTED]

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MR. BARTEL:

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MR. KATCHMAR: Okay.

5

6

MR. PHILLIPS: Mark, were you asked to
look at Tank 1 as well?

7

8

MR. BARTEL: Look at it. And I don't know
that I answered -- I answered --

9

MR. PHILLIPS: Right.

10

11

MR. BARTEL: -- the second half of that
question.

12

13

MR. PHILLIPS: Did you evaluate it in the
same manner?

14

15

MR. BARTEL: So my understanding was that
[REDACTED] And I don't
want to use Cheniere terms here because this isn't --
this isn't Stress information.

18

19

MR. EWING: Yeah. That -- if you didn't
work on that --

20

21

22

MR. BARTEL: I --

MR. EWING: -- then let's not answer that
question.

23

24

25

MR. BARTEL: Okay.

MR. EWING: That's maybe answerable by
others here, and we'll do that.

1 MR. BARTEL: So -- but to Julie's
2 question -- it is Julie?

3 MS. BALDWIN: Yes.

4 MR. EWING: Yeah.

5 MS. STEVENS: Yes.

6 MR. BARTEL: To Julie's question,

7 [REDACTED]
[REDACTED]
[REDACTED], yes, ma'am. Why -- bless
10 you. Why that is happening, I do not know.

11 MR. EWING: That's not your expertise.

12 MR. BARTEL: Especially that it was a

13 [REDACTED] --

14 MR. EWING: Right.

15 MR. BARTEL: -- [REDACTED]
[REDACTED]

17 MR. EWING: And yours is metallurgical, if
18 you will. We have others here that will address the
19 mechanism of action, and I think that will help get at
20 at least a partial answer to the questions you're
21 asking.

22 MR. PHILLIPS: But was -- did we get an
23 answer to were you asked to look at Tank 1
24 metallurgically?

25 MR. BARTEL: From the standpoint of?

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1 MS. STEVENS: At all.

2 MR. BARTEL: Could you clarify?

3 MS. STEVENS: At all.

4 MR. PHILLIPS: Evaluating --

5 MS. STEVENS: At all.

6 MR. BARTEL: Evaluating it in a different
7 manner than Tank 3?

8 MS. STEVENS: I mean, you --

9 MR. EWING: Well, did you -- did you look
10 at Tank 1, Mark?

11 MR. BARTEL: Did I -- I looked at it in
12 order to answer -- provide the White Paper because
13 they're all the same material built by the -- designed
14 by the same company. So the three tanks, 1, 2 and 3,
15 that are the discussion today are essentially triplets.
16 And so looking at Tank 3 is looking at 1 and 2 --

17 MR. PHILLIPS: Okay.

18 MR. BARTEL: -- from the -- as an answer
19 to your question.

20 MR. PHILLIPS: And that report includes
21 your view of those tanks?

22 MR. BARTEL: And that report is germane to
23 all three tanks and says so on --

24 MR. PHILLIPS: Gotcha. What was that date
25 again? Sorry.

1 MR. BARTEL: The 21st of February.

2 MR. PHILLIPS: Okay. 21st. Thank you.

3 MR. EWING: I want to highlight one point
4 I think is important that you've been -- that you said
5 earlier, which is that the loss of certain metallurgical
6 characteristics through exposure to out-of-design
7 temperatures is regained as those temperatures recede
8 and design temp -- excuse me, design temperatures are
9 reestablished. Is that correct?

10 MR. BARTEL: That is correct. And that is
11 the conclusion of the White Paper.

12 MR. EWING: Thank you. I'm aware that
13 you've already signaled you're ready for a break.

14 MS. BALDWIN: Yes. So we're at 12:55,
15 yes. All right. So let's go ahead and we'll adjourn
16 now for lunch. So try to be back promptly at 2:00,
17 meaning everybody in their seats at 2:00 o'clock --

18 MR. EWING: Thank you.

19 MS. BALDWIN: -- so we can make some more
20 progress.

21 (Recess from 12:55 p.m. to 2:04 p.m.)

22 MS. BALDWIN: Okay. I think we have
23 everyone back.

24 So let's start with the people on the
25 phone, just for the court reporter. And we can go back

1 on the record.

2 Joe, Julie, can you guys just introduce
3 yourself briefly again just so we know exactly who's on
4 the phone?

5 MS. HALLIDAY: Sure. It's Julie Halliday.

6 MS. DAUGHERTY: And Joe Sieve with PHMSA.

7 MS. BALDWIN: Okay. So we can pick back
8 up where we -- where we left off. I mean, I think PHMSA
9 was done with the questioning of the last witness so --

10 MR. EWING: Thank you.

11 MS. BALDWIN: -- we're back to Cheniere.

12 MR. EWING: I appreciate it. And I hope
13 everyone had a chance to eat. So we've tried to review
14 the direction of your concerns and questions. And I
15 would propose a few things. One, a small matter, but
16 important to us, one of the concerns that we heard was
17 that we -- that Cheniere was not I would say fast off
18 the mark in bringing in expertise, either internally or
19 externally or in -- or in the nature of its actions.

20 And while I was not able to complete it in
21 the timeframe of lunch, I think in very short order what
22 might be helpful if we may suggest that we be allowed to
23 submit it post-hearing is simply a timeline because
24 there were a lot of questions of when was this person
25 hired, when did this happen --

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1 (Phone beeping)

2 MR. EWING: -- and it seems to me that a
3 full view of that might just on a piece of paper be a
4 helpful thing, and we can compile that and just send it
5 to you.

6 MS. BALDWIN: Okay. Just one second. Who
7 just joined us on the phone?

8 MS. WHITE: This is Senth White.

9 MS. BALDWIN: Okay. So Senth is
10 obviously with DOT as well.

11 That's perfectly acceptable to me and I'm
12 sure --

13 MR. PHILLIPS: No objection.

14 MS. BALDWIN: -- to the Region as well.

15 MR. EWING: Okay. It just seemed to be
16 responsive to some of these questions.

17 We have spent some time this morning
18 talking about concerns relating to structure, structural
19 integrity and the [REDACTED]

20 [REDACTED] -- the structural condition of the
21 tanks.

22 I think -- that is not a bad
23 encapsulation, I think, of your concerns, the potential
24 that there is a consequential catastrophic outcome
25 because of the structural condition of the tanks. And

1 we've been coming at that through a variety of questions
2 ultimately, but I'm not sure that it has fully resolved
3 itself into clarity.

4 Rather than picking up there, what I'd
5 like to do, because we decided among us that it might be
6 the easiest way to get at that, is to -- is to reach
7 over -- kind of work from the outside in, reach over to,
8 well, what's actually the mode of action here? What is
9 driving the problem?

10 And that is a particular mechanism which
11 we can describe -- and that's what I want to do next, a
12 particular mechanism that drives the thermal event and
13 it is the thermal event that is causing the phenomena
14 that we see leading to concerns about structure.

15 So by describing that process, we can get
16 back out to structure and complete that discussion
17 around the concerns with structure and whether or not
18 the structural condition of the tanks are in a state of
19 jeopardy with respect to catastrophe, using catastrophe
20 as a catch-all for everyone's grave concerns.

21 So I'd like to do that. I think that's
22 going to be the easiest. And then we can also, having
23 come back to structure in that way, distinguish Tank 1
24 and Tank 3 from a structural standpoint I think more
25 readily than we can now before you understand --

1 everyone understands what's driving the thermal event.

2 There are a few other things we'd like to
3 do as well, but they are not as large as -- or as
4 important as those because those seem to be driving
5 people's interest and concern and also our desire. So
6 that's what we'd like to do.

7 If that's -- if you're amenable --

8 MS. BALDWIN: I am.

9 MR. EWING: -- Ms. Baldwin, then what I
10 would ask is -- Maas, you definitely need your glasses
11 for this.

12 Let's -- let me set up this for a second
13 because we have been on the outside of the tank, if you
14 will, there, but really we need to figure out what was
15 driving things to the outside of the tank, if you will.
16 We -- it's useful to do it from the inside.

17 And so when one asks -- when one thinks
18 through, well, what could be doing that, there are a
19 number of I'll call them hypotheses to be explored.
20 This is by no means all of them. This is one slide.
21 Okay? But you can -- and it's stated to be clear
22 conceptually. I think we might go through that a little
23 bit and why they were disposed of with robustness, that
24 is to say, with some confidence, and that then led us to
25 an understanding and a higher confidence that we did

1 understand and do understand what the driving process
2 mode of failure is.

3 So, Maas, start us off a little bit at the
4 top end. I think before he gets to the mode that we
5 want to discuss because we think it is applicable, just
6 conceptually -- maybe I'll start.

7 Conceptually a hole in the inner tank.
8 Right? I mean, let's talk about the obvious. How did
9 the LNG get out? Well, maybe there's a hole. That's
10 not exactly a term of art. A hole in the tank.
11 Overfilling the tank, that's a concern that one might
12 have. A tank can be overfilled at least theoretically
13 or could it just be spilling out because you got too
14 much in there.

15 MS. BALDWIN: I'm sorry. For the benefit
16 of the people on the phone also, we're on Page 20 --

17 MR. EWING: 20, right.

18 MS. BALDWIN: -- of this exhibit.

19 MR. EWING: And there are a variety of
20 others, but those are two basic ones. We want to
21 explain why they can be set aside in the briefest terms
22 in order to get to that third one, which is a
23 process-related mode of failure, if you will, a
24 mechanism for action.

25 Let's get a little bit more detail --

1 MR. HINZ: So let's --

2 MR. EWING: -- about that.

3 MR. HINZ: Let's go on to the next slide I
4 think is probably the best way to --

5 MR. EWING: Well, just --

6 MR. HINZ: Okay.

7 MR. EWING: -- explain the rationale --

8 MR. HINZ: Okay.

9 MR. EWING: -- just real quick.

10 MR. HINZ: No problems. So the most
11 likely scenario [REDACTED]
12 [REDACTED]

13 MR. EWING: So what's the [REDACTED]

14 MR. HINZ: So the [REDACTED]
15 [REDACTED] --

16 MR. EWING: [REDACTED]

17 MR. HINZ: -- [REDACTED] So the next
18 slide --

19 MR. EWING: The [REDACTED].

20 MR. HINZ: The next slide, we'll see a
21 drawing of how that works very simply. [REDACTED]
22 [REDACTED]
23 [REDACTED]
24 [REDACTED]
25 [REDACTED]

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[REDACTED]. That in a nutshell is what we understand to be the -- to be the mode.

MR. EWING: We can always come back to that one, but at this point you probably need to visualize this.

MR. HINZ: Just to orientate everyone, this is the 9 --

MR. EWING: We're on Slide 21.

MR. HINZ: Yeah, Slide 21, yeah. This is

So what we expect is happening is in this

MR. EWING: So let me -- eccentric. I'm

1 eccentric.

2 MR. HINZ: Okay.

3 MR. EWING: Can I put it in my terms for a
4 second --

5 MR. HINZ: Go ahead.

6 MR. EWING: -- just to make sure everyone
7 understands?

8 MR. HINZ: Okay.

9 MR. EWING: This is not a bad drawing, [REDACTED]

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

16 MR. HINZ: That's right.

17 MR. PHILLIPS: Can I just say -- one
18 clarifying question. [REDACTED]

[REDACTED] Is that right? [REDACTED]

[REDACTED]

21 MR. HINZ: [REDACTED]

[REDACTED]

23 MR. PHILLIPS: Okay.

24 MR. HINZ: [REDACTED]

[REDACTED]

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1 MR. HOPTAY: I do not have their drawings,
2 but I do believe so.

3 MR. PHILLIPS: It's only -- so at this
4 point [REDACTED]

5 [REDACTED]
6 [REDACTED]?

7 MR. EWING: [REDACTED]

8 [REDACTED] --

9 MR. PHILLIPS: Right.

10 MR. EWING: -- we've been --

11 MR. PHILLIPS: I wanted to clarify that.

12 MR. EWING: And I just don't know the
13 answer -- but there's --

14 MR. PHILLIPS: No problem.

15 MR. EWING: -- intrinsically no reason to
16 think that it is different --

17 MR. PHILLIPS: Right.

18 MR. EWING: -- because they were
19 designed --

20 MR. PHILLIPS: Understood. I just want to
21 orient --

22 MR. EWING: Yeah.

23 MR. PHILLIPS: -- my focus in my head.

24 Thank you.

25 MR. EWING: So carry on.

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1 MR. KATCHMAR: Can you give us the
2 dimensions here of how far that's --

3 MR. HINZ: I can't, but Joe can.

4 MR. HOPTAY: We'll pull some drawings.

5 MR. HINZ: So we'll pull those drawings up
6 with -- actually --

7 MR. PHILLIPS: These aren't to scale?

8 MR. EWING: No.

9 MR. PHILLIPS: I had to say it.

10 MR. EWING: That was a big straw.

11 MR. PHILLIPS: A joke's in the record.

12 MR. EWING: I think you were beginning to
13 state that [REDACTED]

14 [REDACTED]?

15 MR. HINZ: That's right.

16 MR. EWING: And, in turn, [REDACTED]

17 [REDACTED]

18 MR. HINZ: Yep.

19 MR. EWING: And [REDACTED]

20 [REDACTED]?

21 MR. HINZ: Okay. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

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[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

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[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

20

MR. EWING: Maas, to be clear, [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

23

MR. HINZ: That's right.

24

MR. EWING: Because there's only so much

25

we could -- I could manage. But it essentially is [REDACTED]

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1 [REDACTED]?

2 MR. HINZ: That's correct.

3 MR. EWING: And [REDACTED]

4 [REDACTED]

5 [REDACTED]

6 MR. HINZ: Okay. We heard it talked about
7 before. [REDACTED]

8 [REDACTED]

9 MS. BALDWIN: [REDACTED]

10 [REDACTED]

11 [REDACTED]

12 MR. HINZ: It's the same.

13 MS. BALDWIN: Oh, it's the same.

14 MR. HINZ: Yes.

15 MS. BALDWIN: So it's [REDACTED]

16 [REDACTED]

17 MR. HOPTAY: [REDACTED]

18 [REDACTED]

19 MR. PHILLIPS: [REDACTED]?

20 MR. HOPTAY: It's -- yeah.

21 MR. HINZ: [REDACTED]

22 MR. HOPTAY: [REDACTED]

23 [REDACTED]

24 MR. EWING: [REDACTED]

25 MR. HINZ: There's a -- [REDACTED]

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1 [REDACTED] --

2 MR. HOPTAY: Right.

3 MR. HINZ: -- which is [REDACTED]

4 [REDACTED]

5 MR. HOPTAY: That's correct.

6 MS. BALDWIN: So what you're saying is --

7 I mean, [REDACTED], they are going
8 outside of --

9 MR. HINZ: That's correct.

10 MR. EWING: [REDACTED].

11 MS. BALDWIN: -- [REDACTED]?

12 MR. HINZ: That's correct.

13 MS. BALDWIN: Okay. I gotcha.

14 MR. EWING: They are. They're -- [REDACTED]

15 [REDACTED], you see, and they -- why don't you
16 come up as well just so we're all handy at the same time
17 and people can hear?

18 This [REDACTED]

19 [REDACTED]

20 [REDACTED]

21 MS. BALDWIN: [REDACTED] or is it for --

22 MR. EWING: [REDACTED]

23 MS. BALDWIN: Okay.

24 MR. EWING: And that's important because

25 [REDACTED].

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1 MS. BALDWIN: Right.

2 MR. EWING: And you may remember that from
3 my earlier presentation, [REDACTED]

4 [REDACTED]
5 [REDACTED].

6 MS. BALDWIN: Uh-huh.

7 MR. EWING: You're taking the [REDACTED]
8 [REDACTED]
9 [REDACTED]
10 [REDACTED]
11 [REDACTED]

12 MS. BALDWIN: Where does that [REDACTED]
13 [REDACTED] --

14 MR. EWING: So [REDACTED] --

15 MS. BALDWIN: -- [REDACTED]
16 [REDACTED] -- [REDACTED]. You said it goes --

17 MR. EWING: And that's right here. I'm
18 going to stand on this side so that they can correct me,
19 but I -- and the reason I want to speak for a second and
20 then I'll hand it right back to the experts --

21 MS. BALDWIN: Sure.

22 MR. EWING: -- is I want to be sure that
23 you and I -- and you're more expert than I, but that we
24 have it clearly here so it's helpful for both of us.

25 [REDACTED]

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1 in that sense.

2 MR. HINZ: That's right.

3 MR. EWING: [REDACTED].

4 MR. HINZ: That's right.

5 MR. EWING: But then here you see how [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] --

15 MS. BALDWIN: And that's what you're
16 referring to [REDACTED]?

17 MR. EWING: That's [REDACTED] --

18 MS. BALDWIN: All right.

19 MR. EWING: -- exactly, which, again, has
20 nothing to do with, you know, [REDACTED]

[REDACTED]

[REDACTED].

23 Now, to carry it down -- [REDACTED]

24 [REDACTED] right, but

25 what's interesting is -- and this is where you'll pick

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1 up. What's interesting is [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
5 And [REDACTED].
6 You said, well, [REDACTED] And I want to
7 be clear [REDACTED]
[REDACTED] --

9 MS. BALDWIN: Uh-huh.

10 MR. EWING: -- right, which is just a
11 piece of it, but that's the -- and this is the [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED].

15 We'll pick up from there. But that is
16 quite distinct from, for example, [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED] -- oh, is
20 that yours? I beg your pardon. [REDACTED]
[REDACTED]

22 MS. BALDWIN: And so this is [REDACTED]
[REDACTED]

24 MR. EWING: It's [REDACTED]

25 MR. HINZ: Yes, that's right.

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1 MR. EWING: Which means the [REDACTED]

3 MS. BALDWIN: Oh, okay.

4 MR. EWING: All right?

5 MR. HINZ: Yeah, that's right.

6 MS. BALDWIN: And that is coming -- you're

7 [REDACTED]

8 [REDACTED]

9 [REDACTED]

10 MR. HINZ: So coming -- [REDACTED]

11 [REDACTED]

12 [REDACTED] --

13 MS. BALDWIN: Right.

14 MR. HINZ: -- at [REDACTED]

15 [REDACTED]

16 [REDACTED]

17 [REDACTED].

18 MS. BALDWIN: Uh-huh.

19 MR. HINZ: That will happen as you [REDACTED]

20 [REDACTED]

21 [REDACTED]

22 [REDACTED]

23 MS. BALDWIN: So do you have any idea of

24 [REDACTED] --

25 MR. HINZ: [REDACTED]

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1 MS. BALDWIN: Right.

2 MR. HINZ: So --

3 MR. EWING: I would say, if I may, hold
4 that only because it's specific to the incident also.

5 MS. BALDWIN: Okay.

6 MR. EWING: But maybe this -- that's why
7 this is sort of a conceptual. If we can allow the
8 completion of the conceptual, then we can --

9 MS. BALDWIN: That's fine.

10 MR. EWING: -- get to the specifics.

11 Thank you.

12 MR. HINZ: Is there anything else? I
13 think we've explained it. I'm just not sure whether --
14 if we can get some questions just to understand what it
15 is Miss --

16 MR. EWING: Well, I --

17 MR. HINZ: Okay.

18 MR. EWING: There's one more element that
19 I want between the two of you to answer, and that is --
20 so since [REDACTED]

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

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1 MR. HOPTAY: As Maas pointed out, [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] Okay?

5 MS. BALDWIN: Right.

6 MR. HOPTAY: Or [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

11 So there's [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] And as I said this

23 morning, Perlite's like sand, so it's a much more

24 tortuous path than flowing through the fiberglass.

25 So believe also, [REDACTED]

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MS. BALDWIN: Any questions?

5

6

MR. PHILLIPS: Well, this just occurred to me. So are --

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8

9

10

Is that the idea? Is that --

11

12

13

14

15

MR. PHILLIPS: Uh-huh.

16

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MR. PHILLIPS: Right.

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23

MR. PHILLIPS: Right.

24

25

MR. HOPTAY: But we believe that there's

1 MR. PHILLIPS: Okay.

2 MR. HOPTAY: [REDACTED].

3 MR. PHILLIPS: But in terms of [REDACTED]

4 [REDACTED]

5 [REDACTED]

6 [REDACTED]

7 [REDACTED]

8 [REDACTED] Is that --

9 MR. EWING: Yes.

10 MR. PHILLIPS: Is that where we're headed
11 to? That's what we're talking about?

12 MR. EWING: That is exactly correct. So I
13 think you're answering a slightly different question,
14 but I get your -- because it's the same question I had.
15 Oh, so it has the [REDACTED] and it -- I'll [REDACTED]

16 [REDACTED]

17 [REDACTED]

18 That doesn't mean that [REDACTED]

19 [REDACTED]

20 [REDACTED]

21 [REDACTED].

22 MR. PHILLIPS: Sure.

23 MR. EWING: But [REDACTED] which
24 is where you and I, I think, [REDACTED]

25 [REDACTED]

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1 helps explain that reason, which is that the [REDACTED]

6 MR. PHILLIPS: Okay.

7 MS. BALDWIN: I have just a practical
8 question. So you said that [REDACTED]

[REDACTED]. Right?

11 MR. HOPTAY: Yes.

12 MS. BALDWIN: But it has gotten through

14 MR. HOPTAY: Well, it -- [REDACTED]

16 MS. BALDWIN: Right. So you don't know

17 [REDACTED]? It can --

18 MR. HOPTAY: No. I think we do know --

19 MS. BALDWIN: You do?

20 MR. HOPTAY: -- [REDACTED]

[REDACTED] -- which I probably should have
22 mentioned this morning. At [REDACTED]

[REDACTED] And we've -- and the [REDACTED]

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MS. BALDWIN: Oh, okay.

4

MR. HOPTAY: And that's the one that

5

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9

MS. BALDWIN: And ■ are --

10

MR. HOPTAY: -- ■.

11

MS. BALDWIN: -- ■ --

12

MR. HOPTAY: They're --

13

MS. BALDWIN: -- ■

■

15

MR. HOPTAY: The bottom is -- can you pull

16

up the one that we talked to this morning, please? I

17

think like 3 or 4.

18

MR. EWING: Yeah. It was one of the

19

earliest conceptual --

20

MS. SINGH: The earliest conceptual

21

drawing?

22

MR. EWING: Yes.

23

MS. SINGH: This one?

24

MR. HOPTAY: Yeah. That will work.

25

MS. SINGH: Okay.

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1 MR. HOPTAY: Well, it's -- I mean --

2 MS. SINGH: I can --

3 MR. HOPTAY: That will work. This -- [REDACTED]

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED] --

14 MS. BALDWIN: I understand.

15 MR. HOPTAY: -- [REDACTED]
[REDACTED]
[REDACTED] --

18 MS. BALDWIN: I understand. But you don't
19 have [REDACTED]

[REDACTED]?

21 MR. HOPTAY: Right.

22 MS. BALDWIN: Okay.

23 MR. EWING: And --

24 MR. HOPTAY: So we're [REDACTED]
[REDACTED].

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1 MR. EWING: And you have these [REDACTED]

3 MR. HOPTAY: Yes.

4 MS. BALDWIN: And you called it a -- it's
5 a --

6 MR. EWING: [REDACTED]

7 MR. HOPTAY: [REDACTED].

8 MR. EWING: It's like [REDACTED].

9 MS. BALDWIN: A [REDACTED] --

10 MR. EWING: [REDACTED] And I think one
11 point that you said so briefly but it's important is
12 that [REDACTED]

[REDACTED].

14 And so by [REDACTED]

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED].

19 MS. BALDWIN: Uh-huh.

20 MR. EWING: Because if we were [REDACTED]

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

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1

[REDACTED]

[REDACTED]

[REDACTED]

Okay. So it's not -- it's not -- if we were

5

[REDACTED]

[REDACTED]

[REDACTED].

9

MS. BALDWIN: Okay.

10

MR. HINZ: Now, we should point out that

11

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

16

MR. EWING: Can you flip -- it's maybe the

17

next one that shows [REDACTED]

[REDACTED].

19

MR. HINZ: So [REDACTED]

[REDACTED]

[REDACTED] --

22

MR. EWING: That's not it.

23

MR. HINZ: That's the one. So there's --

24

[REDACTED] is not shown on this one, but --

25

MS. KARAUS: It's Slide 8 for those on the

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1 phone.

2 MR. EWING: Thank you.

3 MR. HINZ: So this is the [REDACTED]

4 [REDACTED]
5 [REDACTED]
6 [REDACTED].

7 MS. BALDWIN: You do not see the

8 [REDACTED] --

9 MR. HINZ: Yes, that's correct.

10 MS. BALDWIN: -- registering --

11 MR. HINZ: We do not [REDACTED] --

12 MS. BALDWIN: So from the top?

13 MR. HINZ: -- [REDACTED] That's
14 correct.

15 MS. BALDWIN: Okay.

16 MR. EWING: And --

17 MR. HINZ: So it appears to be --

18 MR. EWING: To be clear, before you -- to
19 be clear, [REDACTED]

20 [REDACTED]
21 [REDACTED]
22 [REDACTED].

23 That is also one of the things relating to

24 [REDACTED]

25 [REDACTED] If ever that becomes important, we can explain

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1 it, but there are [REDACTED]
[REDACTED] So
3 the one on the right --

4 MS. BALDWIN: So [REDACTED]
[REDACTED]
[REDACTED]

7 MR. HINZ: There's a [REDACTED] which is
8 not shown on here. The [REDACTED]
[REDACTED] It's irrelevant to this discussion, but there
10 are [REDACTED].

11 MR. EWING: It's not [REDACTED]
[REDACTED] --

13 MR. HINZ: No.

14 MR. EWING: -- for the purpose of

15 [REDACTED]

16 MS. BALDWIN: Are you ever [REDACTED]
[REDACTED]
[REDACTED]

19 MR. HINZ: Layne, what's that normal
20 operating mode for --

21 MR. EWING: Well --

22 MR. BOUDREAUX: Normal operating mode
23 would be [REDACTED]
[REDACTED].

25 MS. BALDWIN: Okay.

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1 MR. BOUDREAUX: So prior to this

2 [REDACTED]
3 [REDACTED].

4 MS. BALDWIN: But you don't do [REDACTED]

5 [REDACTED]

6 MR. BOUDREAUX: [REDACTED]

7 [REDACTED]
8 [REDACTED]

9 MS. BALDWIN: Okay. So how were you able
10 to assess the -- you said it was [REDACTED]

11 [REDACTED]
12 [REDACTED]

13 MR. EWING: The [REDACTED] --

14 MS. BALDWIN: The [REDACTED].

15 MR. EWING: -- is [REDACTED].

16 MR. HINZ: This one here. We've never

17 [REDACTED]
18 [REDACTED].

19 MS. BALDWIN: And that's by [REDACTED]

20 [REDACTED]?

21 MR. HINZ: That's correct.

22 MR. EWING: That's correct.

23 MS. BALDWIN: At what [REDACTED]

24 [REDACTED]
25 [REDACTED]

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1 [REDACTED] --

2 MR. HINZ: So we --

3 MS. BALDWIN: -- [REDACTED]?

4 MR. HINZ: They collect -- [REDACTED]

5 [REDACTED] that they --

6 MS. BALDWIN: That they're -- okay. So
7 you --

8 MR. HINZ: They're [REDACTED]

9 MS. BALDWIN: There's [REDACTED]

10 [REDACTED]
11 MR. HINZ: That's correct.

12 MR. EWING: And -- great questions, by the
13 way. And keep them coming.

14 And one of the things that I wanted to
15 clarify -- correct answers. But when you said [REDACTED]

16 [REDACTED]

17 [REDACTED]

18 [REDACTED] -- we can explain
19 that in a moment -- [REDACTED].

20 MS. BALDWIN: Okay. And that's because
21 you [REDACTED] these --

22 MR. EWING: Correct. And there was a

23 [REDACTED]

24 [REDACTED]

25 [REDACTED]

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This is -- means that it's a ■

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if you will, ■

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. Right? ■

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So the fact, which we'll come back to,

13

that this is -- ■

■

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18

So you moved it back here. Not bad.

19

Good. Thank you.

20

MS. SINGH: You want it on --

21

MR. EWING: No, no.

22

MS. SINGH: Here is good?

23

MR. EWING: What -- you have questions?

24

MS. BALDWIN: Anything from Julie or

25

Sentho, anything from you guys?

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1 MR. KATCHMAR: Can you back that slide
2 that had the last --

3 MS. HALLIDAY: Yeah. I just wanted to add
4 that there is a requirement in 59A Section 4.1.2 that
5 LNG containers must be designed to accommodate top and
6 bottom filling unless there's other positive means to
7 provide -- to prevent stratification.

8 MR. HINZ: Okay.

9 MS. HALLIDAY: So while there can be a
10 process, way to make this so that they don't use the
11 [REDACTED], we -- you know, we need more
12 discussions, I guess, in terms of is that going to meet
13 the requirements?

14 And then there's also on a drawing -- and
15 maybe you guys could clarify this, but it looks like [REDACTED]
16 [REDACTED] and --

17 MS. BALDWIN: What page are you looking
18 at, Julie, just so that we're all referring to the same
19 drawing?

20 MS. HALLIDAY: Oh, I'm sorry. They're
21 actually different drawings, but it's -- when you look
22 at more detailed drawings of the [REDACTED]
23 [REDACTED]
24 [REDACTED]
25 [REDACTED]

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And it looks like -- and, you know, maybe there's more detailed drawings that show something else, but it looks like [REDACTED]

MS. BALDWIN: Do you guys have any other questions about anything you've heard thus far because I --

MS. McDANIEL: I guess -- [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]."

So [REDACTED]
[REDACTED]?

MR. BOUDREAUX: On [REDACTED]

MS. McDANIEL: Correct.

MR. EWING: Yes.

MS. McDANIEL: And [REDACTED]
[REDACTED]
[REDACTED]

MR. BOUDREAUX: That didn't --

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1

MS. McDANIEL: [REDACTED]

[REDACTED]

3

MR. EWING: Perfect.

4

MR. BOUDREAUX: Okay. So we [REDACTED]

[REDACTED]

[REDACTED]

7

MR. EWING: So that --

8

MR. BOUDREAUX: So we did not --

9

MS. McDANIEL: So you're saying you

10

[REDACTED], but to continue my -- but for

11

[REDACTED]

[REDACTED]

14

MR. BOUDREAUX: So understand that we had

15

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

20

MS. McDANIEL: Okay. [REDACTED]

[REDACTED]

[REDACTED], though?

22

MR. BOUDREAUX: No. We didn't have the --

23

[REDACTED]

[REDACTED]

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1 [REDACTED].

2 MS. McDANIEL: So [REDACTED]

3 [REDACTED]?

4 MR. BOUDREAUX: There was [REDACTED]

5 used, yes.

6 MS. McDANIEL: Okay.

7 MS. BALDWIN: What -- I'm just not

8 understanding. What made [REDACTED]

9 [REDACTED]

10 [REDACTED]

11 [REDACTED]

12 [REDACTED]

13 [REDACTED]

14 [REDACTED]

15 [REDACTED]

16 MR. BOUDREAUX: I can -- I can try to

17 address that. So we didn't [REDACTED]

18 [REDACTED]

19 MS. BALDWIN: So you didn't [REDACTED]

20 [REDACTED] --

21 MR. BOUDREAUX: From what I understand, it

22 was only the [REDACTED] --

23 MS. BALDWIN: [REDACTED] didn't [REDACTED]

24 [REDACTED]

25 MR. BOUDREAUX: No. From --

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1 MS. BALDWIN: Okay.

2 MR. BOUDREAUX: It was [REDACTED]

3 [REDACTED]
4 [REDACTED].

5 MS. BALDWIN: And your concern came [REDACTED]
6 [REDACTED] where did the concern come
7 from? I'm trying to understand.

8 MR. BOUDREAUX: I have to look back at my
9 data.

10 MS. BALDWIN: Okay. But there's -- some
11 concern was raised --

12 MR. BOUDREAUX: Yes.

13 MS. BALDWIN: -- specifically with respect
14 [REDACTED]?

15 MR. HOPTAY: Right.

16 MS. BALDWIN: And you were able to go back
17 and at the [REDACTED] and
18 ascertain, [REDACTED] that
19 when you [REDACTED]
20 [REDACTED]?

21 MR. EWING: And [REDACTED] --

22 MR. HOPTAY: Right.

23 MR. EWING: -- which was part of that.

24 MS. BALDWIN: Okay.

25 MR. EWING: So in your chronology --

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1 MS. BALDWIN: Yes.

2 MR. EWING: -- we would fit that in and
3 say yes --

4 MS. BALDWIN: That would be helpful.

5 MR. EWING: -- it was an incipient "huh"
6 observation. [REDACTED]

7 [REDACTED] and --

8 MR. HOPTAY: But before that, before we
9 came to a conclusion, [REDACTED]

10 [REDACTED]

11 [REDACTED]

12 [REDACTED].

13 MS. BALDWIN: The [REDACTED]?

14 MR. HOPTAY: Right.

15 MS. BALDWIN: And so -- and I'm getting
16 ahead of my -- continue. I'm getting ahead of myself.

17 MR. EWING: And I'll make one other point
18 because it was just raised as to the necessity to use a

19 [REDACTED]. One does [REDACTED] and has

20 that ambidexterity, if you will, in order to [REDACTED]

21 [REDACTED]

22 [REDACTED] That's, however, not our condition. We have

23 [REDACTED], different --

24 MS. BALDWIN: Products?

25 MR. EWING: Yeah. And, I mean, it's all

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1 LNG, but it can be different than those sourcing and
2 totally -- it can be different temperatures. And so
3 when one is using and dealing with [REDACTED], one does
4 not have the same need for that [REDACTED]
5 [REDACTED]. I just wanted to clarify from an
6 observational standpoint.

7 MR. WELLER: You would -- you would
8 typically see it in a regasification. Somebody correct
9 me if --

10 MR. BOUDREAUX: That's correct. That's
11 typically --

12 MR. WELLER: Where you would be getting
13 LNG --

14 MR. BOUDREAUX: That's typically in --

15 MR. WELLER: -- [REDACTED]
16 [REDACTED]
17 [REDACTED].

18 MR. EWING: But we're an export so we're
19 actually making our own.

20 MR. WELLER: Which is the whole --

21 MR. HINZ: Constantly --

22 MR. EWING: We're not receiving [REDACTED]
23 [REDACTED].

24 MR. HINZ: [REDACTED]
25 [REDACTED],

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1 [REDACTED] --

2 MR. EWING: The second thing I wanted to
3 emphasize, or at least clarify and make sure that people
4 caught is [REDACTED]

5 [REDACTED]

6 [REDACTED]

7 [REDACTED].

8 This means that it was [REDACTED]

9 [REDACTED]

10 [REDACTED]

11 [REDACTED]

12 [REDACTED]

13 [REDACTED]

14 MS. BALDWIN: Right.

15 MR. EWING: And that is how we can explain
16 in answer to your question, Mary, [REDACTED]

17 [REDACTED]

18 [REDACTED]

19 [REDACTED]

20 [REDACTED]

21 [REDACTED].

22 And that I'll let others speak to but --

23 MR. HINZ: That's correct, yeah. Yeah,
24 so --

25 MR. EWING: -- correct or otherwise.

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1 MR. HINZ: So the position of -- so it
2 appears that [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED] That's
7 essentially what we understand to have happened.

8 MR. EWING: And this is [REDACTED]
[REDACTED]
[REDACTED]

11 MS. BALDWIN: Right.

12 MR. EWING: If [REDACTED]
[REDACTED]. Okay. [REDACTED]
[REDACTED] -- correct me if I'm wrong, guys, but to keep
15 things moving --

16 MR. HINZ: This was --

17 MR. EWING: It was [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

21 MS. BALDWIN: That's what he said,
22 [REDACTED], yeah.

23 MR. HINZ: Due to the [REDACTED]

24 MR. EWING: Yeah.

25 MR. HINZ: The [REDACTED].

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1 MR. EWING: Thank you.

2 MR. PHILLIPS: So just to clarify, it
3 wasn't the [REDACTED]

4 [REDACTED]
5 [REDACTED]
6 [REDACTED]
7 [REDACTED]?

8 MR. HINZ: It wasn't --

9 MR. PHILLIPS: It wasn't?

10 MR. HINZ: No. I'm trying to understand
11 the question.

12 MR. PHILLIPS: Yeah. So I'm just sort of
13 trying to get the timeline. So from [REDACTED]
14 [REDACTED]
15 [REDACTED]
16 [REDACTED]?

17 MR. EWING: The [REDACTED] is not I think
18 what the struggle with the --

19 MR. HINZ: So the answer is --

20 MR. EWING: -- [REDACTED].

21 MR. HINZ: So the answer is [REDACTED]
22 [REDACTED]

23 MR. EWING: Right.

24 MR. PHILLIPS: That's why --

25 MR. EWING: It was the [REDACTED]

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1 [REDACTED].

2 MR. PHILLIPS: Right, yeah. So I don't

3 [REDACTED] --

4 MR. EWING: That's what --

5 MR. PHILLIPS: -- like that, no.

6 MR. EWING: -- was causing the [REDACTED].

7 MR. PHILLIPS: There were -- there were --

8 yeah. There were [REDACTED] I guess to say so that [REDACTED]

9 [REDACTED]. And then it was -- [REDACTED]

10 [REDACTED], I'm sure.

11 MS. STEVENS: Yeah, [REDACTED].

12 MR. PHILLIPS: [REDACTED].

13 MR. EWING: Right. We had already taken
14 the action to table --

15 MR. PHILLIPS: [REDACTED]

16 [REDACTED]?

17 MR. EWING: -- [REDACTED] because that was
18 our --

19 MR. PHILLIPS: Right.

20 MR. EWING: -- [REDACTED]. But

21 [REDACTED]

22 [REDACTED]

23 MR. PHILLIPS: Yeah.

24 MR. EWING: -- and [REDACTED] and [REDACTED]

25 [REDACTED]. And some of these slides -- on Page 23, it

1 doesn't quite do full justice to [REDACTED]

2 because I only have a page but --

3 MR. PHILLIPS: Sure.

4 MR. EWING: -- I think that does it. And,
5 of course, Joe here, who's standing there, is --

6 MR. HOPTAY: Yeah.

7 MR. PHILLIPS: -- is --

8 MR. HOPTAY: Go ahead.

9 MR. PHILLIPS: Please.

10 MR. HOPTAY: Well, one thing I wanted to
11 point out is that the [REDACTED]

12 [REDACTED].

13 MR. EWING: Right.

14 MR. PHILLIPS: Okay.

15 MR. HOPTAY: Okay. There's some that will

16 [REDACTED]

17 [REDACTED]

18 [REDACTED].

19 So if you have -- you know, [REDACTED]

20 [REDACTED]

21 [REDACTED] All those
22 things go into whether you have the event or not.

23 MR. PHILLIPS: Okay.

24 MR. HOPTAY: And it was [REDACTED]

25 [REDACTED].

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1 MR. EWING: Can you just briefly explain
2 what you mean -- and y'all keep using it, and I do,
3 too -- [REDACTED]

4 [REDACTED]
5 [REDACTED].

6 MR. HINZ: Yeah. I thought that -- so
7 [REDACTED]
8 [REDACTED]
9 [REDACTED]
10 [REDACTED]
11 [REDACTED].

12 MS. McDANIEL: But I would like to ask --
13 if you can go back to the [REDACTED]
14 [REDACTED]

15 Okay. So if I'm reading this right --
16 this is when the report was written -- you had these
17 [REDACTED]
18 [REDACTED], and that's [REDACTED]
19 [REDACTED].

20 So [REDACTED]
21 [REDACTED]
22 [REDACTED]
23 [REDACTED], I assume, and that's why -- I guess we're
24 just not capturing it here.

25 But to me, when I look at it -- and I'm

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1 not meaning to do the investigation part here, but when
2 I look at it for [REDACTED]

3 [REDACTED]
4 [REDACTED]

5 So I don't know if [REDACTED] that
6 you're going to provide Kristin whether that was going
7 to say -- [REDACTED]

8 [REDACTED]
9 [REDACTED]
10 [REDACTED]?

11 MR. EWING: The temperature -- the weather
12 events -- the weather temperature in January of 2018 --
13 this is your timeline of 1-19, that was -- that was the
14 cold snap.

15 MS. McDANIEL: Okay. Well, there were
16 cold --

17 MR. BOUDREAUX: So I think --

18 MS. McDANIEL: There were cold snaps in
19 November and December as well.

20 MR. BOUDREAUX: Yeah. So I think the --

21 MS. McDANIEL: That's why I was kind of
22 curious whether there was any other --

23 MR. BOUDREAUX: Take the -- he'll
24 understand that is -- we didn't [REDACTED]

25 [REDACTED]

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1

[REDACTED]

2

MS. McDANIEL: Okay. So you were

3

unaware --

4

MR. BOUDREAUX: In other words, we

5

weren't --

6

MS. McDANIEL: -- [REDACTED] --

7

MR. BOUDREAUX: -- [REDACTED]

[REDACTED]

[REDACTED]

9

MS. BALDWIN: And RCA is?

10

MR. BOUDREAUX: Root cause analysis.

11

MR. EWING: Root cause analysis.

12

MS. BALDWIN: Still working on that.

13

MR. EWING: Which is that comprehensive --

14

MR. PHILLIPS: Are these --

15

MR. EWING: -- and systematic --

16

MR. PHILLIPS: Are these the [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] I guess?

20

MR. HINZ: [REDACTED]

21

MR. PHILLIPS: [REDACTED]

[REDACTED] was it?

23

MR. HINZ: [REDACTED]

24

MR. PHILLIPS: And when [REDACTED]

[REDACTED]

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1 MR. HINZ: It was within [REDACTED]

3 MR. PHILLIPS: Okay. So it wouldn't
4 have --

5 MR. HINZ: [REDACTED].

6 MR. PHILLIPS: Gotcha. So that -- you
7 wouldn't have --

8 MS. McDANIEL: It wouldn't [REDACTED] -- it
9 wouldn't [REDACTED]

10 MR. HINZ: That's correct.

11 MR. BOUDREAUX: That's correct.

12 MR. KATCHMAR: Is that --

13 MS. McDANIEL: But I'm just kind of
14 curious from that standpoint then. [REDACTED]

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

22 MR. KATCHMAR: [REDACTED].

23 MS. McDANIEL: Right. Well, going the
24 opposite way, yeah. [REDACTED]

[REDACTED]

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1

2

3

4

MR. EWING: Let me be sure to understand.

5

You are wondering why

6

?

7

MS. McDANIEL: Yes.

8

MR. EWING: When?

9

MS. McDANIEL: When you

10

, which is when --

11

12

-- however we were calling them, that when

13

you did that --

14

MR. EWING: Uh-huh.

15

MS. McDANIEL: -- why you

16

17

--

18

MR. EWING: Right.

19

MS. McDANIEL: -- in

20

.

21

MR. EWING: I think --

22

MS. McDANIEL: So by

23

a -- I don't know,

24

25

1 [REDACTED].

2 MR. EWING: I think there's a -- now I
3 understand your question. Thank you for that.

4 MS. McDANIEL: Sorry. I'm --

5 MR. EWING: No, no. I just needed to pick
6 my way through it. I think there are a couple of ways
7 to answer. One is, of course, what's the purpose of
8 that [REDACTED] And in particular also what is the
9 industry standard that is applicable that governs, if
10 you will, [REDACTED]

11 And both of those determined for us what

12 [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

16 MS. McDANIEL: And, like I said, I don't
17 disagree with that when --

18 MR. EWING: Okay.

19 MS. McDANIEL: -- [REDACTED]
[REDACTED] --

21 MR. EWING: Right.

22 MS. McDANIEL: -- [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED] So my -- you took a remedial action

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1 to --

2 MR. EWING: Yeah.

3 MS. McDANIEL: -- [REDACTED]

4 [REDACTED]

5 [REDACTED]

6 MR. EWING: Right. I think -- what I'll
7 say is I think that's a good point to -- observation to
8 make and perhaps that is something we can consider in
9 hindsight with more clarity. But what governed our
10 actions to explain -- to give the answer of why then we
11 would -- what explains the answer [REDACTED]

12 [REDACTED]

13 [REDACTED]

14 [REDACTED]

15 [REDACTED]

16 So you're in some sense talking about

17 [REDACTED]

18 [REDACTED]

19 [REDACTED]

20 [REDACTED]

21 but it's an
22 observation and we take it on board.

23 I don't think, though -- this is

important. [REDACTED]

24 [REDACTED]

25 [REDACTED]

Right? That's important to

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1 understand. But this [REDACTED] -- I'm pointing to it, but
2 this [REDACTED]

3 [REDACTED]
4 [REDACTED]
5 [REDACTED]
6 [REDACTED]

7 MR. PHILLIPS: And just --

8 MR. EWING: [REDACTED]

9 [REDACTED]
10 [REDACTED] I want to be sure that that's understood in
11 the theory.

12 MS. McDANIEL: Well, I mean, to be -- it
13 sort of takes it [REDACTED]

14 [REDACTED]

15 MR. EWING: Well, [REDACTED]

16 [REDACTED]

17 [REDACTED] --

18 MS. McDANIEL: Right. So my --

19 MR. EWING: -- the [REDACTED] --

20 MS. McDANIEL: You [REDACTED]

21 [REDACTED]

22 MR. EWING: Yeah.

23 MS. McDANIEL: -- [REDACTED]

24 [REDACTED] so to me -- that's where I'm
25 saying that you thought you were [REDACTED]

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1 SO...

2 MR. EWING: Yeah.

3 MS. McDANIEL: As my double-check, that's
4 what I'm saying, I would think --

5 MR. EWING: Yeah, yeah.

6 MS. McDANIEL: -- at that point [REDACTED]
[REDACTED]
[REDACTED]

9 MR. EWING: I take your point and we take
10 it on board.

11 MS. McDANIEL: Okay.

12 MR. EWING: Thank you.

13 MR. PHILLIPS: We're still at the point
14 just -- and tell me if I'm wrong. I mean, this is --
15 this is the hypothesis.

16 MS. McDANIEL: Yeah. We haven't -- yeah.
17 You --

18 MR. PHILLIPS: Yeah. We haven't confirmed
19 this. Is that right? I mean, [REDACTED]
[REDACTED] from --

21 MR. EWING: It's not necessarily clear
22 that one needs to confirm it by putting someone into the
23 tank.

24 MR. PHILLIPS: I'm not saying that, but
25 we're -- but this is still a hypothesis. Is that right?

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1 There's no --

2 MR. EWING: Well, it's a hypothesis
3 that -- you know, in science, you go from hypothesis to
4 theory.

5 MR. PHILLIPS: Right.

6 MR. EWING: Right? Theorum and, you know,

7 [REDACTED] --

8 MR. PHILLIPS: Well, but the [REDACTED]

9 [REDACTED] --

10 MR. EWING: -- but there's a [REDACTED]

11 [REDACTED] --

12 MR. PHILLIPS: -- comes to let us know
13 that [REDACTED] So, I mean, we have a
14 [REDACTED]. We have a -- we know the --

15 MR. HINZ: Why do you say that? Why do
16 you say [REDACTED]

17 [REDACTED]

18 MR. PHILLIPS: Well, trust me. You don't
19 want what I say to be --

20 MR. WELLER: Let's tease that out --

21 MS. KARAUS: If you're going to make a
22 statement --

23 MR. WELLER: -- because that's the --

24 MR. EWING: Yeah.

25 MS. BALDWIN: I think we shouldn't --

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1 MR. WELLER: I think we need to go back
2 to --

3 MS. BALDWIN: -- talk over each other.

4 MR. WELLER: I'm sorry.

5 MS. BALDWIN: I'm fine with the back
6 and -- back and forth. Let's just be mindful of the --

7 MR. WELLER: Sorry.

8 MS. BALDWIN: -- court reporter. So could
9 you, Mr. --

10 MR. EWING: Weller.

11 MR. WELLER: Weller.

12 MS. BALDWIN: Weller. Sorry.

13 MR. WELLER: Yeah. I think it would be
14 helpful because we -- I think we've done this on maybe
15 prior calls maybe in several weekly briefings with them,
16 but it would be helpful to talk about that because I get
17 where you're coming from, Adam.

18 It's -- okay. [REDACTED]
[REDACTED] And
20 I think we need to talk about the --

21 MR. PHILLIPS: Okay.

22 MR. WELLER: -- [REDACTED]
[REDACTED] and why that would --

24 MR. PHILLIPS: Okay.

25 MR. WELLER: -- [REDACTED]. I

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1 think that --

2 MR. PHILLIPS: Sure.

3 MR. WELLER: That was helpful for me.

4 MR. EWING: Yeah.

5 MR. HINZ: So we talked about the

6 [REDACTED] --

7 MS. BALDWIN: [REDACTED] -- I'm sorry.

8 I --

9 MR. HINZ: [REDACTED]

10 [REDACTED]

11 MS. BALDWIN: Volume?

12 MR. EWING: [REDACTED]

13 MS. BALDWIN: [REDACTED]. I'm sorry.

14 MR. HINZ: My language becomes a

15 problem --

16 MS. BALDWIN: I just want to make sure I

17 get it.

18 MR. HINZ: And that was the [REDACTED]

19 [REDACTED]

20 [REDACTED] that we're
21 concerned with.

22 MR. EWING: Go slow. Let her -- she's, I
23 think, taking this down and let's get clarity on the
24 two.

25 MR. HINZ: Okay.

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1 MR. EWING: [REDACTED].

2 MR. HINZ: So [REDACTED]

■ [REDACTED]

■ [REDACTED]

■ [REDACTED]

■ [REDACTED]

■ [REDACTED]

■ [REDACTED]

■ [REDACTED]

10 please?

11 MR. BOUDREAUX: [REDACTED] is when they --

12 MR. HINZ: Since the [REDACTED]

■ [REDACTED]

■ [REDACTED]

15 MS. BALDWIN: Can I ask a question?

16 MR. BOUDREAUX: And just to clarify real

17 quick, when he says [REDACTED]

■ [REDACTED]

■ [REDACTED]

20 MR. EWING: And this is a key distinction

21 from the [REDACTED]

■ [REDACTED]

23 MS. BALDWIN: Right. So [REDACTED]

■ [REDACTED]

■ [REDACTED]

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1 MR. EWING: They were --

2 MR. HINZ: That's outside --

3 MR. EWING: They were engaged early --
4 earlier than -- the Matrix report -- can you put up the
5 summary? It will have the dates, I think.

6 MS. BALDWIN: Yeah. If she goes back one
7 slide.

8 MS. SINGH: Yeah, the one that I --

9 MR. EWING: Yeah, perfect. So you see
10 they were engaged much earlier.

11 MS. BALDWIN: When -- this is [REDACTED] or --

12 MR. EWING: Yeah, [REDACTED].

13 MR. HOPTAY: [REDACTED]. Well --

14 MR. EWING: No.

15 MR. HOPTAY: -- we got -- I think we were
16 actually brought on board right [REDACTED]. We
17 issued questions to Cheniere to help us understand --

18 MS. BALDWIN: Right.

19 MR. HOPTAY: -- [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

23 MS. BALDWIN: [REDACTED] Can you just
24 give me just a rundown? I mean, you -- the study -- the

25 [REDACTED]

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1

2

?

3

4

And I'm interested just because I want to understand like what was, you know, [REDACTED]

5

6

7

8

But what -- first of all, what is the --

9

10

MR. EWING: The purpose of the study, what was it directed towards?

11

12

MS. BALDWIN: What was the purpose of the study? And, two, why was there --

13

MR. HINZ: [REDACTED]

14

15

MR. PHILLIPS: [REDACTED]

16

MR. HINZ: -- [REDACTED]

17

18

MS. BALDWIN: Okay. Can you go back just one slide? Yeah. I read that wrong. It says, "[REDACTED]

19

20

21

22

MR. HOPTAY: Right. Well, I mean, we were commissioned to understand what the problem was.

23

MR. EWING: Yes.

24

MR. HOPTAY: Okay?

25

MS. BALDWIN: Okay.

1 MR. HOPTAY: I'm part of the [REDACTED]
[REDACTED]
[REDACTED] and so forth.

4 MS. BALDWIN: Okay.

5 MR. HOPTAY: We all got together. We
6 looked at the data. We put together a bunch of
7 questions. When we got that data back, it became
8 apparent to us that [REDACTED]

[REDACTED]
[REDACTED]
[REDACTED], the --

12 MS. BALDWIN: Right.

13 MR. HOPTAY: -- overfilling, all that.

14 MS. BALDWIN: Okay.

15 MR. HOPTAY: At that time that [REDACTED]
[REDACTED]
[REDACTED]. Now,
18 our charge was to understand what happened and give them
19 guidance on how to use it so there was not a problem.

20 MS. BALDWIN: Uh-huh.

21 MR. HOPTAY: It was not their intention --

22 [REDACTED]
[REDACTED]
[REDACTED]

25 Okay? Now, it's not as widespread as the root cause

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1 analysis going on now, but that's what we found.

2 MR. HINZ: And [REDACTED]

3 [REDACTED]

4 [REDACTED]

5 MR. EWING: So even though -- to finish it

6 off, even though [REDACTED]

7 [REDACTED]

8 [REDACTED]

9 [REDACTED]

10 Right?

11 We nevertheless wanted to understand it.

12 Right? Whether we thought we [REDACTED] we

13 wanted to understand it. [REDACTED]

14 [REDACTED]

15 [REDACTED]

16 [REDACTED]

17 [REDACTED]

18 [REDACTED]

19 [REDACTED]

20 [REDACTED]

21 [REDACTED]

22 [REDACTED]

23 [REDACTED]

24 [REDACTED].

25 There's a separate thing, which is, well,

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1 having explained it, is there -- is there a way that one

2 [REDACTED]

3 [REDACTED]

4 [REDACTED]

5 [REDACTED]

6 [REDACTED]

7 [REDACTED]

8 [REDACTED]

9 [REDACTED]

10 [REDACTED]

11 [REDACTED]

12 [REDACTED] and that's --

13 MS. BALDWIN: But only up until that --

14 MR. EWING: I'm sorry?

15 MS. BALDWIN: But only up until the

16 [REDACTED]

17 MR. EWING: Yes. It would -- the

18 [REDACTED] --

19 MS. BALDWIN: So you wouldn't have caught

20 any variations --

21 MR. EWING: -- would [REDACTED] --

22 MS. BALDWIN: -- that were [REDACTED]

23 [REDACTED]

24 MR. WELLER: I don't think that's --

25 MR. HINZ: We retrospectively reviewed the

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1 data to confirm that.

2 MR. EWING: Yeah. You can look at --

3 MS. BALDWIN: Right. Okay.

4 MS. KARAUS: So there was --

5 MR. EWING: We are continually monitoring
6 it.

7 MS. KARAUS: -- [REDACTED]

8 [REDACTED]

9 [REDACTED]

10 MR. PHILLIPS: Does that mean, though,
11 that then [REDACTED]

12 [REDACTED]?

13 MR. BOUDREAUX: No. So there was [REDACTED]

14 [REDACTED]

15 [REDACTED]

16 [REDACTED]

17 MR. HOPTAY: There were [REDACTED]

18 [REDACTED].

19 MR. WELLER: And the [REDACTED]

20 [REDACTED].

21 MR. EWING: It's [REDACTED].

22 MR. WELLER: They're [REDACTED]

23 [REDACTED]

24 [REDACTED]

25 This is just to show you the history we have.

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1 MR. EWING: So not --

2 MR. KATCHMAR: It just [REDACTED]

4 MR. EWING: Correct.

5 MS. STEVENS: When you changed --

6 MR. EWING: So [REDACTED] --

7 MS. STEVENS: When you [REDACTED]

9 MR. HINZ: Yes.

10 MS. STEVENS: -- [REDACTED]

13 MR. HINZ: Yes, we did.

14 MS. STEVENS: Okay. Got it.

15 MS. BALDWIN: And in the report that

16 [REDACTED]
[REDACTED]
[REDACTED]?

19 MR. HOPTAY: We asked the question during
20 the -- [REDACTED]

22 MS. BALDWIN: Okay.

23 MR. HOPTAY: We looked at [REDACTED]

[REDACTED] that

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1

2

3

MR. KATCHMAR: Do you know at what

4

5

--

6

MR. HOPTAY: I do not know that.

7

8

question?

9

MR. KATCHMAR: Do you know what the

10

11

?

12

MR. EWING: Oh.

13

MR. SHANDA:

--

14

MR. BOUDREAUX: Are you talking about

15

?

16

MR. EWING: Yeah. I think --

17

MR. BOUDREAUX: ?

18

MR. KATCHMAR: Yeah.

19

MR. EWING: We set it. I mean, I --

20

21

curious to me that the

22

is --

23

MR. LEMMERMAN:

24

MR. KATCHMAR: --

1 MR. HINZ: So that [REDACTED] that you're
2 describing is [REDACTED]

3 [REDACTED]
4 [REDACTED] --

5 MR. EWING: So let me explain the
6 [REDACTED] here. It is essentially a [REDACTED] --

7 MR. KATCHMAR: No.

8 MR. EWING: -- [REDACTED].

9 MR. KATCHMAR: I understand. And I
10 understand how they work.

11 MR. EWING: Yeah. Okay. Well, I
12 wanted --

13 MR. KATCHMAR: But I'm just under --
14 trying to understand --

15 MR. EWING: So you don't -- [REDACTED]
16 [REDACTED] --

17 MR. KATCHMAR: No. I'm just talking about
18 the [REDACTED].

19 MR. BOUDREAUX: Can I repeat what I hear
20 you saying? You're asking us [REDACTED]

21 [REDACTED]
22 [REDACTED]

23 MR. KATCHMAR: [REDACTED].

24 MR. BOUDREAUX: Yeah. I can't --

25 MR. KATCHMAR: Because, I mean, then if

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1 the [REDACTED] was --

2 MS. KARAUS: And so --

3 MR. KATCHMAR: -- [REDACTED]

4 [REDACTED] --

5 MS. KARAUS: May I? It's a -- it's a good
6 question for an investigation, but I think it might be
7 taking us a little bit off track here --

8 MR. KATCHMAR: Okay.

9 MS. KARAUS: -- for purposes of discussing
10 the CAO.

11 MR. KATCHMAR: Okay.

12 MS. KARAUS: Is that --

13 MR. EWING: That's correct. But a quick
14 answer may be provided right here.

15 MR. GALLAGHER: Yeah. This is Terry
16 Gallagher with CBI. It's -- [REDACTED]

17 [REDACTED]

18 [REDACTED] --

19 MR. EWING: [REDACTED].

20 MR. GALLAGHER: -- [REDACTED]

21 MR. KATCHMAR: Okay.

22 MR. GALLAGHER: And so what its common
23 practice is to [REDACTED]

24 [REDACTED]

25 [REDACTED]

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1 Now, what they've done by [REDACTED]
[REDACTED], again, [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

9 MR. WELLER: But industry practice --

10 MR. GALLAGHER: Industry practice
11 typically for leak detection have it at the LNG
12 temperature or something very close to it.

13 MR. EWING: And that's --

14 MR. KATCHMAR: Okay. Thank you.

15 MR. EWING: That's why [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

22 MR. KATCHMAR: Gotcha.

23 MR. EWING: Okay. Thank you.

24 MS. BALDWIN: Is there any questions from
25 anyone on the phone? So we can move forward.

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1 MR. PHILLIPS: I was going to ask Julie a
2 quick question --

3 MS. BALDWIN: Sure.

4 MR. PHILLIPS: -- just if I can ask her.

5 Julie, I think what you're hearing likely
6 is some you've heard subsequent to us issuing the CAO
7 and maybe some new. Is that correct?

8 MS. HALLIDAY: That's correct. I wasn't
9 aware of the -- [REDACTED]

10 [REDACTED].

11 MR. PHILLIPS: Okay.

12 MR. EWING: [REDACTED]? I'm sorry. [REDACTED]

13 [REDACTED] or whatever?

14 MR. MARKOWITZ: [REDACTED]

15 MR. EWING: [REDACTED]?

16 MR. MARKOWITZ: [REDACTED].

17 MR. EWING: [REDACTED]

18 MS. HALLIDAY: Right. I just wasn't aware
19 of that.

20 MR. EWING: Okay. Thank you.

21 MR. PHILLIPS: So is it fair to say
22 that -- I'm sorry.

23 Did I -- is it fair to say then that, you
24 know, in the run-up to the CAO you were learning some of
25 this information piece by piece, didn't know -- you

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1 know, we didn't even receive our copy of the Matrix
2 report until the 27th, so, you know, this -- obviously
3 [REDACTED]
4 [REDACTED], but in terms of our knowledge
5 about it we're coming in relatively fresh?

6 MS. HALLIDAY: Correct.

7 MR. PHILLIPS: Okay. Thank you.

8 MR. EWING: So to be clear, we disagree
9 with that characterization and I'd like to explain why.
10 We've been -- [REDACTED]

11 [REDACTED]
12 [REDACTED]
13 [REDACTED]
14 [REDACTED] just to have them in front of us. Thanks.

15 [REDACTED]
16 [REDACTED]
17 [REDACTED]
18 MR. PHILLIPS: Don't let my
19 characterization, by the way, advise you. I don't mean
20 to say problems. I mean to say whatever non-pejorative
21 word would work because I'm not meaning to --

22 MR. EWING: Yeah. I don't mean to pick --

23 MS. STEVENS: It's important.

24 MR. EWING: -- on the word.

25 MR. PHILLIPS: Yeah, it is. It is,

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2 MR. EWING:

[illegible]

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1 [REDACTED] --

2 (Phone beeping)

3 MR. EWING: Are we losing a --

4 MS. BALDWIN: Somebody dropped off.

5 MR. EWING: Okay.

6 MS. BALDWIN: That's a leaving beep.

7 MR. EWING: While we learned from the 22nd
8 about a more [REDACTED]

9 [REDACTED] -- that's all in the service of the
10 same purpose because our understanding of the mechanism
11 is not challenged.

12 This is important because there is a --
13 there is an uncertainty level that's being expressed by
14 PHMSA that is not shared by Sabine Pass, and that --
15 that's very important for lots of reasons. And we may
16 get right now to something, which is -- Bryn can help
17 illuminate.

18 When there are uncertainties, of course,
19 the mechanism is dialogue and all of that, which I think
20 has been happening in spades and will continue to
21 happen. The chosen method of engaging us to a CAO -- a
22 no notice CAO is not the appropriate mechanism, not the
23 right tool in the tool kit, given the regulatory
24 standard --

25 (Phone beeping)

1 MS. BALDWIN: Somebody --

2 MR. EWING: -- given the regulatory
3 standard that's -- I assume it's someone coming on
4 again.

5 MS. BALDWIN: That was someone --

6 MR. PHILLIPS: Someone just getting on.

7 MS. BALDWIN: -- getting back on.

8 MR. EWING: Yeah. Hello. Has someone
9 joined us?

10 MS. WHITE: Hi. Sorry. This is Senth
11 White. My call dropped.

12 MR. EWING: Super. Thank you. So, in any
13 event, we feel that that uncertainty can be resolved
14 numerous ways with tools that are in PHMSA's disposal
15 that do not involve reaching for an unfounded public
16 safety threat.

17 I focus on that because that is why we
18 have asked for this hearing. We are very concerned with
19 the conclusion reached that this is and was and
20 continues to be, so long as it's in effect, a public
21 safety threat of the highest order that you have, all
22 right, when that is not correct.

23 This is not to contest that there are
24 things to learn, diagnostics to run, prudent measures,
25 de-inventorying, a bunch of things to talk through,

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1 things you need to understand and get from us, all of
2 that.

3 We are not proposing that the correct
4 thing was to do nothing or that PHMSA should not do
5 anything with us. No. We're here for a very specific
6 reason, which is that resolving uncertainty is
7 distinct -- distinct from drawing the conclusion that
8 there is a public safety threat with that degree of
9 certainty, and I say it is likely -- that is the
10 standard, likely of serious harm. That concerns us
11 greatly.

12 We do have a public around us. We have
13 shareholders, although that's secondary. That's
14 economic. This is very meaningful to us. It's very
15 meaningful to you. So I would like to briefly elaborate
16 why we think there are other tools that are more
17 appropriate, not that we're --

18 MS. HALLIDAY: If I could interrupt and
19 just add --

20 MR. EWING: Yeah.

21 MS. HALLIDAY: -- one comment --

22 MR. EWING: Sure.

23 MS. HALLIDAY: -- because I think this is
24 important. When I came down and was escorted to Tank 3,
25 I was walked past Tank 1 on the way. And I had

1 previously asked, were there any other alarms that went
2 off? And it was, "I don't think so, but I need to
3 check."

4 But I was walked past Tank 1 where there
5 were vapors emanating from the bottom of the tank, the
6 temperatures at that annular space [REDACTED]
7 [REDACTED], and nobody shared with me that there was an
8 issue with Tank 1.

9 I don't know if you were sharing it with
10 your other employees, with the contractors on site, but
11 you didn't share it with me. So I don't know what else
12 you're not sharing with me. I don't know what I don't
13 know. And it's at that point where you lose trust.

14 MS. BALDWIN: So, Mr. Ewing, I mean, I
15 think further to that point, I'm going to continue --
16 I'm going to allow you to continue with your
17 presentation. But just in addressing this point,
18 because I think it's important to understand, the --
19 there's something -- oh, did you do that on purpose?

20 MS. SINGH: Yes.

21 MS. BALDWIN: Okay. Can you put it back
22 to the left, the last slide because I had a couple of
23 questions?

24 It says even here, [REDACTED]
[REDACTED]

1 [REDACTED]. I would be curious to hear --
2 you know, we've talked a lot about what the other tools
3 at PHMSA's disposal are to ensure that you make an
4 operational decision that could have a consequence. It

5 [REDACTED]

6 [REDACTED]

7 However, what a CAO is intended to do in
8 some circumstances is to impose corrective actions that
9 obligate an operator to take certain actions and/or
10 precautions. So as you just proceed in your
11 presentation, I would like for you to keep that point in
12 mind --

13 MR. EWING: Yes.

14 MS. BALDWIN: -- and, you know, give me
15 what the argument --

16 MR. EWING: Yes.

17 MS. BALDWIN: -- is because I have
18 listened to, you know --

19 MR. EWING: I hear you.

20 MS. BALDWIN: -- a great deal of testimony
21 at this point and I have not made a decision either way,
22 obviously, but clearly there is a -- there could be a

23 [REDACTED]

[REDACTED]

[REDACTED]

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1 I mean, I think that, you know, reasonable
2 people can disagree about certain things, but you have
3 taken at the very least a pretty definitive stance
4 against a procedure that was in use regularly prior to
5 at the very least 2016. So I just want you to keep that
6 in mind. It's a -- it's a question that's sort of
7 niggling at me at this point.

8 MR. EWING: You bet. I think this is
9 getting to the key. And I would like to do two
10 things --

11 MS. BALDWIN: Sure.

12 MR. EWING: -- in addressing precisely
13 that. We will go through -- Bryn, I'll ask you in a
14 moment to go through that analysis of tools. Recognize
15 we're not dictating to the agency what tools, but we're
16 seeking to do that to illuminate the ability to satisfy
17 your needs and concerns and trust concerns, which we
18 hear with concern on our side, with other mechanisms.

19 But the second thing that I will then do
20 is address the tail end of what you said, which was -- I
21 believe you're communicating an incipient belief or
22 understanding that these indicators that you -- of
23 temperature on these dates, et cetera, indicate that
24 there may have been a serious -- that was the word you
25 used -- likelihood of harm.

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1 That is incorrect and we want to be sure
2 that you leave today understanding why. So that piece
3 of it is really important and [REDACTED]
4 [REDACTED]. We're not. And there
5 are mechanisms that are available to you to get
6 comfortable with that. But even if we did -- and this
7 is a counterfactual. Okay? Even if we did, it would
8 not result in that concern -- should not result in that
9 concern that suddenly we would have that likelihood of
10 substantial harm.

11 That's actually not under the -- on the
12 table under any of these scenarios so I want to come
13 back to that because that -- you say it's niggling at
14 you. Boy, it's an important niggle so I want to be sure
15 to get that.

16 But let's look at the tools and discuss
17 them in general terms to illuminate the difference.

18 MR. PHILLIPS: And I would just say for
19 the record --

20 MR. EWING: Yeah.

21 MR. PHILLIPS: -- we're glad to hear from
22 Bryn, of course, about the tools. But for the purposes
23 of this hearing, we have to decide whether or not the
24 CAO itself is valid. So, I mean --

25 MS. KARAUS: We totally agree.

1 MR. EWING: Agreed.

2 MR. PHILLIPS: You know, we understand
3 tools. So I'm glad to hear it but --

4 MR. EWING: She's also --

5 MR. PHILLIPS: -- we understand --

6 MR. EWING: -- asked us and she's the
7 hearing officer.

8 MR. PHILLIPS: Well, of course.

9 MR. EWING: So we want to answer her.

10 MR. PHILLIPS: Whatever the hearing
11 officer wants to hear. But for our side, you know,
12 obviously --

13 MS. KARAUS: Well, so one reason why I
14 want to talk about this a little bit is because there
15 have been -- we understand what we've heard -- most of
16 what we've heard today has been expressions of concern
17 about your ability to conduct an investigation or get
18 information that you need in order to know the status of
19 the situation at Sabine Pass.

20 And you know the agency, of course, has
21 broad investigatory authority, and it's not just
22 because -- it's written out in your regulations in
23 Section 190.203 that you have broad investigatory
24 authority. And as part of that, it doesn't just say
25 that you can go and request records, although it does

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1 say that. And it doesn't just say that you can show up
2 at the facility, although it does say that as well.

3 It also says that you can require testing
4 independently of a -- of a corrective action order. So
5 the agency can require a company to conduct testing
6 without the issuance of a CAO, and that's in
7 Section 190.203(d). So -- but even if that was not
8 sufficient, if you -- if you were dealing with an
9 operator who was uncooperative perhaps, there are, of
10 course, other tools, which I know you are familiar with,
11 and so -- but I will go over them briefly.

12 A notice of proposed safety order, of
13 course, is an option and is a tool that PHMSA has used
14 in the past in somewhat similar circumstances. And the
15 criteria for issuing a notice of proposed safety order
16 is the -- an integ -- the risk of an integrity threat,
17 which is a different standard from that for -- which is
18 required for a CAO.

19 MR. EWING: The risk of integrity threat
20 is very different from a determin -- is special. It's
21 very different from the determination which is
22 affirmative that there is a threat, and not only that,
23 that it is a likelihood of serious harm, and that
24 difference in threshold is the ballgame.

25 MS. KARAUS: Well, so I want to make

1 clear -- I want to make sure that it is clear, of
2 course, to everybody in the room that a safety order is
3 not some -- it's not like CAO Lite. It is an
4 independent different mechanism which expressly provides
5 for the agency to be able to order the company to take
6 corrective measures, very similar to a corrective action
7 order but without that determination of imminent hazard.

8 So it's not -- it's -- it does provide for
9 that type of authoritative corrective action on the part
10 of the agency. It also expressly provides for the
11 opportunity for informal consultation in between the
12 operator and the agency. So the agency can gather all
13 the information it needs and the two parties can come to
14 a greater understanding of what the actual situation is.

15 MR. EWING: May I amplify on that point?

16 MS. KARAUS: Certainly.

17 MR. EWING: It is not just that this --
18 the safety order allows there to be dialogue, but also a
19 dialogue about what will be the measures that everyone
20 feels comfortable with taking that makes sense to take.

21 So it's not a negotiated document in that
22 sense, but it is a discussion driven and information in
23 respect to the sharing mechanism that drives not just
24 your -- or facilitates not just your investigation but
25 also the decisions you're making on the remedies -- the

1 remedies. And so it is a particularly useful tool.

2 We emphasize -- and to Adam's point, it is
3 not for us to elect what tools you choose, and we do not
4 make that presumption. We really don't. But we wanted
5 to talk about those other tools in order to highlight
6 the threshold as to threat that distinguishes them
7 without reducing the ability of the agency to ensure
8 itself of information and controls over the actions to
9 be taken.

10 To a large degree -- to a large degree, we
11 do not have substantive objection to doing many of the
12 things that are in that CAO or CFA. We started our
13 investigations on the spot, the initial conversations
14 internally to hire DNV to do a -- DNV is a very well
15 regarded consulting firm, to do a root cause.

16 Those discussions happened on the morning
17 of the 23rd of January. We didn't wait for you to tell
18 us that. So that's why we have this discussion about
19 tools, not to be presumptive, but rather to highlight
20 the difference in standard.

21 Okay. If you have --

22 MS. KARAUS: I have --

23 MR. EWING: Yes.

24 MS. KARAUS: Yeah. I have just one more
25 thing to add is that you -- it sounds like you have

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PHMSA has a history of sometimes following an incident, not immediately issuing a CAO but engaging in communication with the operator. And there's at least one case that I can think of off the top of my head, and I'm sure that there are others, where the company then decided to reinstate operation of a pipeline that had just experienced a failure and it was only at that point that the agency said, "Okay. Hang on. We need a CAO because this conversation is not going well."

16

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MR. EWING: Specifically you're taking actions that we think are inconsistent with safety. You can intervene at this spot.

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MS. KARAUS: As --

MR. EWING: That's very important.

MS. KARAUS: As you know, you can issue a CAO without any notice. If you were to get an indication from Cheniere -- and, please, if anybody behind me disagrees. I don't think that Cheniere is planning on doing anything like putting the tanks back

1 into service without having this conversation. But if
2 you -- if you were seriously concerned about that, you
3 could, of course, issue a CAO on the same day.

4 MR. EWING: Yeah.

5 MR. PHILLIPS: And just as part of --
6 agreed, just to affirm that. But part of -- part of
7 this process from the 22nd to the 8th was that
8 conversation. And like you said -- you mentioned, you
9 know, we will always continue the conversation. It's
10 never our plan to shut the doors and say, you know,
11 stand on a thing we said 12 years ago and we can't hear
12 anything.

13 That's never how we operate. The
14 conversation always continues. But knowing that there
15 was something that happened on the 22nd and, you know,
16 step by step, as we walked along through those days
17 between the issuance of the CAO, we were not convinced
18 that there was a plan in place that convinced us -- that
19 assured us of safety. That's why the CAO was issued.

20 So, granted, we're not saying that there
21 was a new event on February the 8th. That's not what
22 we're saying. There's no new findings at all. But from
23 the incident on the 22nd to the issuance on the February
24 the -- on February the 8th, there was a conversation
25 going on that didn't assure us that we were getting

1 enough information about safety.

2 We're learning new things today, you know.
3 That conversation again is still ongoing, and that's
4 great. It should be like that. But we're glad you have
5 a plan that you think works, and that's important. But
6 we also need to know that, too. We're the regulators.

7 MS. KARAUS: And --

8 MS. BALDWIN: Sorry. I just want to --

9 MS. KARAUS: Sure.

10 MS. BALDWIN: -- ask.

11 MR. PHILLIPS: Yes.

12 MS. BALDWIN: So, Adam, I'd like for you
13 just to specifically address where the likelihood of
14 serious harm to life, property or the environment is
15 now --

16 MR. PHILLIPS: Absolutely.

17 MS. BALDWIN: -- or where it was at the
18 date of the issuance of the CAO if it cont -- if it's
19 the Region's contention that it continues today.

20 MR. PHILLIPS: Okay.

21 MS. BALDWIN: And I would like to give
22 Mary an opportunity to address that as well as Julie.

23 MR. PHILLIPS: Sure, absolutely. It is --
24 it's our contention that it did exist both to life,
25 property as the well as the environment. There are

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1 major waterways. 82 is also there. That is our major
2 export facility of LNG in the whole country. This is,
3 you know, obviously a very important infrastructure
4 facility.

5 The people that were on site, whether they
6 be -- no contention that this is next to a major city.
7 We're not saying that. But there's at the very least,
8 and I think this is the number we've gotten from
9 Cheniere, 107 people on the site at the time of the
10 incident. That's a major threat to life. We consider
11 that a major threat to life.

12 Of course, property, you know, being --
13 there's a bridge right there. There's major, you know,
14 infrastructure pieces and obviously any property that
15 Cheniere has that might be imperiled by any sort of fire
16 or, you know, a larger more dramatic event. So I want
17 to make sure I give -- let me give Julie an opportunity
18 first and then Mary, if you want to speak to it.

19 Julie, have I missed anything?

20 MS. BALDWIN: And, Julie, specifically --
21 and this is Kristin. I'd like to hear specifically,
22 given some of the technical testimony that we've had
23 today -- we have more of an understanding now than we
24 had yesterday given Sabine Pass's presentations.

25 Given the information about, you know,

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1 when the issue was discovered through how the -- you
2 know, what we're positing actually occurred on the
3 actual date of the incident, I'd just like --

4 MS. HALLIDAY: For me --

5 MS. BALDWIN: Go ahead. I'm sorry.

6 MS. HALLIDAY: It's -- so there's, I
7 think, two points that go specifically to the imminent
8 hazard at the time we wrote the CAO in that there was
9 still continuing uncontrolled release of vapor that was

10 [REDACTED]
11 [REDACTED] there was still -- the

12 [REDACTED] of
13 those tanks.

14 And at this point there hadn't been finite
15 element analysis. There hadn't been other subject
16 matter expertise to assess the criticality of those
17 temperatures and those vapor emissions. Right? So
18 subsequently -- I mean, if we look like a year from now,
19 we could always -- hopefully we're getting better and
20 improving safety, but at that time that's what was known
21 by Cheniere and by PHMSA. That was the situation.

22 MS. KARAUS: May I -- may I ask a
23 question? You've asked two important questions, Julie.
24 But given those things that you see as possibly leading
25 to -- or pointing to an imminent hazard, what was

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1 imminent -- what required the use of the CAO as opposed
2 to a different enforcement mechanism such as a safety
3 order given that the [REDACTED]

4 [REDACTED]
5 [REDACTED]?

6 MS. HALLIDAY: Well, you say

7 [REDACTED]
8 [REDACTED]
9 [REDACTED]
10 [REDACTED]
11 [REDACTED].

12 [REDACTED]
13 [REDACTED]
14 [REDACTED]
15 [REDACTED] you know, you can look -- at one point they were
16 looking at [REDACTED]

17 [REDACTED]
18 [REDACTED]
19 [REDACTED]
20 [REDACTED] Right?

21 [REDACTED]
22 [REDACTED]
23 [REDACTED]

24 MR. PHILLIPS: And is it fair to say,
25 Julie -- this is Adam -- that we were concerned without

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1 corrective measures in place -- without corrective
2 measures being in place that conditions might change on
3 the site in a way that we didn't anticipate and didn't
4 think would be safe for operation? Is that right?

5 MS. HALLIDAY: Absolutely. I mean, you
6 look at -- there's [REDACTED]
7 [REDACTED]. Now,
8 what if there's an earthquake? Right? We now have
9 another event that's [REDACTED]
10 [REDACTED] that nobody can control.

11 MR. PHILLIPS: And so without PHMSA taking
12 action essentially, there is -- you know, without PHMSA
13 taking the CAO action, we were having to count on really
14 outside -- well, you know, our job is safety, number
15 one, just like Cheniere's job. But we didn't have any
16 assurances and didn't have the confidence that without
17 the corrective measures, being the CAO, in place that
18 life, property and the environment would be protected.

19 Mary, I didn't want to cut you off. You
20 were --

21 MS. DAUGHERTY: I apologize, but we have
22 an ugly situation developing.

23 MR. EWING: Could you --

24 MS. DAUGHERTY: Not in this room.

25 MR. WELLER: Can we clarify on the

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1 record not in --

2 MS. DAUGHERTY: For the record --

3 MS. BALDWIN: Yes.

4 MS. DAUGHERTY: Not in this room. So we
5 need to address the situation with the reporter.
6 They're getting --

7 MS. BALDWIN: Okay.

8 MS. DAUGHERTY: The reporter is getting
9 pretty ugly with our folks --

10 MR. EWING: Oh.

11 MS. DAUGHERTY: -- about why they haven't
12 been allowed back in the room. So we need to either --

13 MR. PHILLIPS: Okay.

14 MS. DAUGHERTY: -- cut them loose, make a
15 decision on how -- what you want to do, but they've been
16 in there for quite a while.

17 MS. BALDWIN: Well, I don't think -- we
18 haven't reached the end of their testimony and we still
19 are discussing certain design elements. I anticipate
20 we're at -- towards the end of that. They can always
21 choose to leave. If they choose to stay, I may allow
22 them back in.

23 MS. DAUGHERTY: How long do you think
24 you're going to go today or do you think you'll wrap
25 over until tomorrow?

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1 MS. BALDWIN: It just -- it depends. What
2 is the extent of sort of Cheniere's presentation?

3 MR. EWING: So this is a gut feel.

4 MS. BALDWIN: Yeah.

5 MR. EWING: And I'm including not just our
6 presentation, but you want to estimate, too. My gut is
7 that it being 3:30-ish -- I know you had said 5:00.
8 Maybe that's possible, but I would think by -- certainly
9 by 6:00 things are concluded.

10 MS. BALDWIN: Uh-huh.

11 MR. EWING: Or if they're not, if there's
12 a specific thing to be explored in some fashion that you
13 would like to explore.

14 MS. BALDWIN: Uh-huh.

15 MR. EWING: But I would think that that
16 can be accomplished. We are intent on meeting your
17 timeframes as well as we can.

18 MS. BALDWIN: Okay.

19 MR. EWING: So I think that can be done.
20 And that includes conversation time and Q and A.

21 MS. BALDWIN: And thank you for reminding
22 me because we still do -- I mean, this conversation
23 about standards, I mean, that's something that can be
24 public.

25 So to the extent there are additional

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1 presentations or information that you need to bring
2 forward at this time that you would have a concern with
3 sharing with the public because it's confidential
4 business information, let's --

5 MR. EWING: We'll try to --

6 MS. BALDWIN: -- table this discussion.

7 MR. EWING: Yeah.

8 MS. BALDWIN: And let me turn back to
9 Cheniere because I know that we sort of devolved.

10 MR. EWING: Yeah.

11 MS. DAUGHERTY: So to clarify for me,
12 because I'm going to go talk to him, what time should we
13 estimate that he can come back in the room? What's our
14 target?

15 MS. BALDWIN: I mean, it depends on how
16 many -- how much additional information --

17 MR. EWING: That depends --

18 MS. BALDWIN: -- we have to --

19 MR. EWING: -- on how many questions and
20 how interested -- 5:00, so that gives us --

21 MS. DAUGHERTY: Sometime --

22 MR. EWING: -- an hour past that.

23 MS. BALDWIN: Well, let's take five
24 minutes right now because I just want to talk with Linda
25 like very, very briefly.

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1 MR. EWING: Yeah.

2 MS. BALDWIN: So let's take five minutes
3 just to camp to the other room.

4 MR. EWING: Sure.

5 MS. BALDWIN: I don't want to make, you
6 know, this -- we do want to get done today --

7 MS. DAUGHERTY: Yeah.

8 MS. BALDWIN: -- so let's go off the
9 record for five minutes and I'll go out.

10 (Recess from 3:37 p.m. to 3:45 p.m.)

11 MS. BALDWIN: Okay. So let's reopen
12 the --

13 MR. EWING: May I turn this on?

14 MS. BALDWIN: Oh, yes.

15 Do we still have everyone on the phone,
16 Julie, Joe, Senthos?

17 MR. SIEVE: Joe's here.

18 MS. BALDWIN: Anybody else?

19 MS. WHITE: Yes.

20 MR. SIEVE: Joe Sieve is here.

21 MS. BALDWIN: All right. So we're going
22 to get started.

23 Oh, here's Mary.

24 MS. McDANIEL: Sorry.

25 MS. BALDWIN: Linda might be detained a

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1 little bit. So we'll go back on the record now. It's
2 1:40 -- is it 2:47?

3 MS. McDANIEL: It's 3:47.

4 MR. EWING: It's 3:47, yeah.

5 MS. BALDWIN: So it's 3:47.

6 So in the next 30 minutes, I would like
7 for Cheniere, to the extent you have information or any
8 testimony that you need to bring forward that might
9 involve any confidential information, to attempt to
10 bring that forward.

11 In that time period, I would also like for
12 the regional staff to, if you have any technical
13 questions, at this point please gather them. And,
14 again, if we have to do some mop-up at the end, I'm
15 happy to do that, too.

16 But let's -- before we -- you know, we've
17 been in this discussion of the standard of the
18 likelihood of serious harm for a while. And that's
19 something that we can discuss publicly so...

20 MR. EWING: That -- may I pick up there?

21 MS. BALDWIN: Yes.

22 MR. EWING: Because that discussion, which
23 I think is central --

24 MS. BALDWIN: Right.

25 MR. EWING: -- does involve confidential

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1 information. What I'm going to do, anticipating that we
2 might be time constrained, is I've set up a sequence of
3 people and I'm going to be sort of boom, boom.

4 MS. BALDWIN: Okay.

5 MR. EWING: It's not that I'm trying to
6 rush you guys or anybody.

7 Let me quickly address this, very quickly,
8 Julie's stated concern, lightning strike, earthquake, a
9 couple of quick remarks, just to be clear. I understand
10 those are expressions of concern, fears, but there are
11 rejoinders and responses that do not disrespect that
12 fear but acknowledge it.

13 First, the LNG facilities you must
14 understand, Ms. Baldwin, are designed and configured to
15 withstand seismic events. The codes that apply for that
16 are well established, and we wouldn't have been able to
17 or allowed to construct it nor would we deem to operate
18 it if they had not met them. Lightning strike, yes, we
19 do not control God, Zeus or anyone else, but obviously
20 provisions have been made in the design standards for a
21 long time for LNG facilities.

22 The tanks, for example, themselves bear
23 proper grounding. A strike to a non-grounded part of
24 the containment zone is conceivable, but that is not
25 addressed by the CAO versus something else. The CAO

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1 does not make that fact go away. The design and our
2 understanding of engineering does what it can with
3 respect to that threat. So I want to be specific on
4 those because they were raised.

5 Now, let me turn to the other element
6 underlying the concerns expressed by you, your niggling
7 feeling, if I may quote, and also to an extent Julie.
8 And I'll ask Paul Sullivan to come on up for a second.

9 We will address again briefly in a moment
10 whether a [REDACTED]

11 [REDACTED] in there could happen
12 or be expected to happen. The answer is no, to be very
13 clear.

14 We -- the answer is no there. But setting
15 that aside, even if there were, what is very important
16 to understand, what we started with, is that the
17 facility is configured, designed, constructed -- I don't
18 even say operated -- just the physical, passive elements
19 of it, even if there were a release of the inventory
20 that we have, as much or as little as people
21 subjectively may think it is, it will not result in the
22 vapor dispersion and threats associated with it
23 extending beyond the perimeter. And, in fact, we have
24 no indicator of anything other than generalized fear, if
25 I may, that that is something to be concerned about

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1 here.

2 What we have, on the other hand, to give
3 us confidence is the design standards and the --

4 May I have the exclusive -- Nishita, the
5 exclusion zone slide?

6 This is absolutely CEII. Obviously we're
7 not even going to give you the detailed version. You've
8 seen one before, I'm sure. But I want to express this
9 with great clarity and with Paul's help in short order
10 and then move on.

11 This is the relevant part of the facility.
12 You can see the tanks. These are concentric -- they're
13 not really concentric. I'll call them concentric.
14 These are flux lines. They're just elements, if you
15 will, that tell us in this case the thermal levels that
16 would be experienced.

17 You don't really know perhaps offhand what
18 that feels like, but we can describe what that feels
19 like. And all of that must and is contained within the
20 facility, and that is if the entire full tank were to
21 catastrophically release its entire contents. We're not
22 talking about anything remotely approaching to that. It
23 would be counterfactual. It's not -- it's not a matter
24 of possibility, and that is because of the inventory
25 level and the design features.

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1 And this point is so important. I would
2 like Paul to make it since he's the expert and -- on the
3 design.

4 MR. SULLIVAN: I'll follow that briefly
5 and say the 1600 is what we regard as the walk-away
6 line. Somebody affected would walk away. They would
7 probably run away in this case, and that's it.

8 So regarding that, this actually deals --
9 the full extent of that deals with three tanks having
10 failed because -- that's the reason why it has that
11 [REDACTED]. So really I don't think anyone is
12 going to commit to understanding anything different than
13 this is the full extent of code required, you know,
14 safety requirements for every piece of inventory on the
15 site or any piece of inventory on the site to become
16 free from the containment of the tanks.

17 MR. EWING: I would like to point out one
18 aspect of that because it relates to the concerns that
19 were specifically enumerated to justify the likely
20 threat. They include highways, waterways, you know, the
21 interstate, et cetera, what I think is the highway.

22 Please understand -- it's a little hard to
23 see, but you can remember from the photo. The waterway
24 is here. The highway is well beyond this picture.

25 MR. SULLIVAN: Yeah.

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1 MR. EWING: It doesn't get there. There
2 is no mechanism of action that is described anywhere in
3 the record underlying the CAO that even posits a
4 mechanism. It does not even suggestively indicate any
5 mechanism that would lead to threat on that highway or
6 in that waterway.

7 MR. SULLIVAN: Or the waterway, yeah.

8 MR. EWING: We would not be allowed to
9 build here -- take the waterway. The Coast Guard is
10 here -- was here.

11 MR. SULLIVAN: Was here.

12 MR. EWING: We would not be allowed to
13 build here. In fact, we have to model this for the
14 ships coming in and coming out because we cannot
15 afford -- the United States can't afford, we can't
16 afford to have that threat possibility affecting the
17 waterway, any area that could be built residentially, a
18 highway or anything of the sort.

19 I'm doing this with a certain oomph for
20 two reasons, speed, which I respect. I've got a half
21 hour. But the second is there's no lack of clarity
22 there. And one does not need to have done analysis of
23 that in order to get there. This preceded -- this
24 preceded the construction of the facility as a whole.

25 [REDACTED]

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1 [REDACTED].

2 MS. BALDWIN: Uh-huh.

3 MR. EWING: There's an easier way for me
4 to put it than that, I suppose. And I'll ask Maas to
5 come up.

6 MR. PHILLIPS: Can I ask one quick
7 question?

8 MR. EWING: Oh, please do. I'm sorry.
9 I'm not trying to --

10 MR. PHILLIPS: Are you contending that
11 it's impossible for your facility to be an imminent
12 hazard?

13 MR. EWING: I'm sorry. I didn't hear
14 that. Impossible for?

15 MR. PHILLIPS: For your facility to ever
16 be an imminent hazard.

17 MS. STEVENS: Because of its --

18 MR. EWING: No. What I -- what we are
19 contending is when you take this analysis, this analysis
20 supports -- it doesn't determine, but it supports our
21 understanding when we evaluate the conditions that we
22 actually have.

23 MR. PHILLIPS: Sure.

24 MR. EWING: I'm really grateful for that
25 question.

1 MR. PHILLIPS: We understand exclusion
2 zones. We have --

3 MR. EWING: Oh, I know you do.

4 MR. PHILLIPS: Yeah, for sure.

5 MR. EWING: I'm explaining to the
6 presiding officer --

7 MR. PHILLIPS: She gets it --

8 MR. EWING: -- which is important.

9 MR. PHILLIPS: -- more than I do, but
10 just --

11 MR. EWING: Fantastic --

12 MR. PHILLIPS: Yeah.

13 MR. EWING: -- because then much will be
14 clear.

15 So the answer is no, we do not contend
16 that because every LNG facility is built to code or
17 should be built to code that there can never be a
18 CAO-worthy imminent hazard. Instead, this analysis
19 informed us -- informs us readily to how to calibrate
20 and understand the conditions that we have and how that
21 would relate to hazard. That is what is important.

22 We have nothing in the record that tells
23 us the mechanism of exposure, the exposure pathway, that
24 is claimed at a very high level of certitude likely to
25 cause a high level of harm. We just don't have that in

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1 the record. We don't see it ourselves. We have a bunch
2 of people who have been thinking that through. We do
3 not understand that.

4 And that is the point of difference. We
5 do not object -- we do not object to taking actions --
6 being under your supervision and taking those actions,
7 ensuring that we have a dialogue on all of those things.
8 It is that finding of necessity that we really, really
9 do not think is fulfilled by the facts.

10 So with that and watchful of the time,
11 Maas.

12 What we'd like to establish quickly -- and
13 then I'll turn it to Maas -- is -- and this is the most
14 simple of renderings. Right? In the interest of time,
15 we'll leave it there instead of many other slides. The
16 condition of Tank 1 and the condition of Tank 2 is, of
17 course, in each case what drives our understanding of
18 hazard from -- or threat from those -- from those tanks.
19 Right?

20 And so a finding of -- that they are to be
21 treated the same in the CAO, which is as it appears,
22 must be supported by a similar understanding, or at
23 least analogous understanding, of threat. This is not
24 supported by the dissimilarity of their condition.

25 So we'd like to examine that briefly,

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1 first with you and then I'll come to Terry and Joe.

2 MR. HINZ: So, very simply, while we do
3 have [REDACTED]

4 [REDACTED]
5 [REDACTED]

6 MR. EWING: What is NDE?

7 MR. HINZ: So non-destructive examination.

8 [REDACTED]
9 [REDACTED]
10 [REDACTED]
11 [REDACTED]
12 [REDACTED]
13 [REDACTED]
14 [REDACTED]
15 [REDACTED].

16 MR. EWING: Pause. This is an issue that
17 Julie raised. She felt, I think, I would say
18 uncomfortable, sort of unhappy as we hear it, that she
19 [REDACTED]. I just
20 want to re-raise it on her behalf, if you will. She was
21 worried about [REDACTED]
22 [REDACTED], please.

23 MR. HINZ: The [REDACTED]
24 [REDACTED]
25 [REDACTED]

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MR. EWING: Meaning the

4

was not --

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MR. HINZ: The

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7

MS. McDANIEL: But it is important to note

8

that that's

9

10

MR. EWING: That --

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MS. McDANIEL: Any

12

13

MR. EWING: That's correct.

14

MS. HALLIDAY: Meaning that

15

?

16

MR. HINZ: So it

17

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MS. HALLIDAY: Okay. Because I looked on

21

the

22

23

MR. HINZ: Okay. So that was

24

25

MR. EWING: The , and then

1 [REDACTED].

2 MR. HINZ: That's correct.

3 MR. EWING: And there's [REDACTED]

4 [REDACTED]

5 [REDACTED]

6 [REDACTED] --

7 MR. HINZ: That's correct.

8 MR. EWING: -- by FERC --

9 MR. HINZ: That's correct.

10 MR. EWING: -- and [REDACTED]

11 [REDACTED]

12 [REDACTED]

13 [REDACTED]

14 [REDACTED]

15 [REDACTED]

16 MR. HINZ: Yes, that's correct. Thank
17 you.

18 MR. KATCHMAR: And [REDACTED]. Is
19 that correct?

20 MR. EWING: Correct.

21 MR. KATCHMAR: FERC told me it was a

22 [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

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1 MR. LEMMERMAN: It had to do with [REDACTED]
[REDACTED]
[REDACTED]
4 that --

5 MR. KATCHMAR: They say [REDACTED]
[REDACTED]

7 MR. HINZ: If you actually read the
8 report, that [REDACTED]
[REDACTED].

10 MR. KATCHMAR: It's got a -- that's what I
11 heard. And it was [REDACTED]

[REDACTED]
[REDACTED] They -- you know, it wasn't --

14 MR. EWING: FERC is not here so I can't --

15 MR. KATCHMAR: It wasn't [REDACTED]
[REDACTED].

17 MR. EWING: The [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

22 MS. KARAUS: Can I -- can I ask --

23 MR. KATCHMAR: No, it's okay.

24 MS. KARAUS: Before -- you mentioned it,
25 [REDACTED] Think we're trying to establish a

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1 timeline. When did that [REDACTED]

2 [REDACTED] Does somebody else maybe have the answer?

3 MR. HINZ: I'd have to refer to my notes.

4 MS. KARAUS: Okay.

5 MR. HINZ: I would have to refer to my
6 notes.

7 MR. EWING: We can look at them. Joe?

8 MS. KARAUS: That's what --

9 MR. EWING: Thanks, Maas.

10 MR. HOPTAY: As I said this morning,
11 there's [REDACTED]

12 [REDACTED]

13 [REDACTED]

14 [REDACTED]

15 [REDACTED]

16 [REDACTED]

17 [REDACTED]

18 [REDACTED]

19 [REDACTED]

20 [REDACTED]

21 [REDACTED]

22 [REDACTED]

23 The plan is to have -- I don't -- it's on
24 this side. But [REDACTED]

25 [REDACTED] That's when we can make the

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MR. EWING: So --

4

MS. HALLIDAY: Can I make a comment on the
repair?

6

MR. EWING: Please.

7

MS. BALDWIN: Please.

8

MS. HALLIDAY: Okay. The -- so it was --

9

10

. But as I read what was done, it -- what
they essentially did was

11

12

13

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It's --

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18

but that's not the intent.

19

And if you go back to

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21

22

MR. EWING: I think what --

23

MS. HALLIDAY: I'm concerned that, you

24

know, there's going to be -- with the thought of

1 and [REDACTED].

2 MR. EWING: Thank you, Julie. This is
3 Kevin. What I would say is that is part of an
4 appropriate dialogue that is resolved through expert
5 discussion and does not actually -- and I'm not pointing
6 out the irrelevance of your remark, not at all. I
7 respectfully take it on board.

8 The point I want to make is with respect
9 to the CAO, that's -- issuing the CAO and particularly
10 making the hazard finding is not necessary to resolving
11 whatever differences there may be or not about the
12 sufficiency of a particular repair action. All of that
13 can be overseen, supervised, directed, et cetera,
14 through many other mechanisms that do not involve threat
15 if you're really, really to address that.

16 MS. HALLIDAY: Right. And the reason I
17 brought it up was related to the imminent hazard because
18 my concern was that you're going to put Tank 1 back into
19 service without making a permanent -- without, one,
20 doing the analysis to find out if -- what has happened,
21 right, because we don't know about [REDACTED]
22 [REDACTED]. Nobody knows. You haven't seen it. There's no
23 way to evaluate it without getting into the tank.

24 MS. KARAUS: Well, I'll just respond to
25 that on a legal basis. A concern that the company might

1 do something just doesn't quite reach the standard that
2 is required for a CAO just --

3 MS. McDANIEL: Well, if I can speak up,
4 before we took the break, Julie had the opportunity to
5 say -- speak for the immediacy for the -- and then it
6 was the Region's turn and I didn't get to get my turn.
7 So --

8 MS. BALDWIN: I do want you to state that,
9 but if it doesn't -- it doesn't relate to a technical
10 matter --

11 MS. McDANIEL: Yeah. It sort of applies,
12 though, to the conversation we're having right now.

13 MS. BALDWIN: Okay.

14 MS. McDANIEL: So if it's all right, the
15 Region's position was -- is to support that. Two field
16 folks from our -- two engineers from our office went out
17 there on February the 2nd. And during that visit, there
18 was some concern about -- discussions about repair and
19 things.

20 So the CAO wasn't in place. And so I
21 think there was discussions about maybe putting things
22 back in service prior to a full analysis being done or
23 some of these other parts being done. So
24 our imminence -- our immediacy for the CAO was for that
25 reason.

1 We did not feel that without the CAO we
2 would be able to have those conversations and get the
3 repairs made as necessary before putting this back into
4 service. And that's based off the engineers' visit
5 there and the discussions that they had when they were
6 on site.

7 And so that sort of supports what Julie
8 has been talking about in getting information and
9 sharing that information and having that forward. So
10 their part is sort of what led to the Region also
11 feeling that in order to make the repairs go, the CAO
12 was necessary instead of one of the other tools that
13 were available.

14 MR. EWING: Thank you for that.

15 My quick thought on it, before turning to
16 the next, in light of time, is the issue that's being
17 addressed there -- the category of issue that's being
18 addressed there is the sufficiency of measures that are
19 being taken.

20 That is wholly different from a conclusion
21 of likely serious harm there, their orthogonal. And I
22 think that's -- orthogonal's too strong. There is a
23 relationship, but that relationship is attenuated and we
24 don't understand why that concern requires that finding.
25 That concern is resolved through measured actions that

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1 may be required through a number of other mechanisms,
2 but that don't hinge on the finding of threat.

3 MS. McDANIEL: And I think -- I think
4 that's where we disagree, that through the discussions
5 we didn't feel that the -- there were -- then there
6 would be a threat because they were not going to be
7 addressed with all the information necessary to
8 eliminate the threat you might have on your facility.

9 MR. EWING: I think we've --

10 MS. BALDWIN: So I don't want to abridge
11 this conversation, but I would like to push us --

12 MR. EWING: Yeah.

13 MS. BALDWIN: -- forward to the next
14 technical or confidential piece of information because I
15 would like for Julie, since she was one of the accident
16 investigators actually at the scene, to have an
17 opportunity to ask any questions of one of your various
18 subject matter experts in, you know -- so let's move on
19 to that. And we'll have -- we'll come back to this CAO
20 standard.

21 So is there any further presentation that
22 requires viewing this document or another map or
23 testimony by another technical expert, and then I'll
24 just allow some catch-all questions to Pete or Julie or
25 anybody on the phone. And then we can move towards

1 (unintelligible). We've got about 20 minutes left.

2 MR. EWING: I -- what I would say is that
3 everything has been -- at least this end certainly has
4 been abbreviated in order to accommodate that.

5 MS. BALDWIN: Uh-huh.

6 MR. EWING: So is there more? You bet.
7 But is it necessary? I think we need to strike a
8 balance. We're trying to honor that balance that you
9 spoke of earlier. If I feel like the discussion -- I
10 would like to suggest that if I feel like the discussion
11 that is a wider discussion leads again into that
12 territory, while it is undesirable, I'll -- and we feel
13 like --

14 MS. BALDWIN: You let me know.

15 MR. EWING: -- we need to respond, I will
16 let you know.

17 MS. BALDWIN: Okay.

18 MR. EWING: What I would like to have the
19 opportunity still to do is to address -- which I think I
20 can do without getting too deep into the proprietary
21 unless people want to challenge a lot on the details --
22 are to examine the seven specific bases cited for -- and
23 some of them are brief, for the finding of imminent
24 harm.

25 MS. BALDWIN: Uh-huh.

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1 MR. EWING: I would like also then to draw
2 back and summarize some key points that I think need to
3 emerge here as our perspective on the facts.

4 And the last thing that I would like is I
5 really would like -- and maybe that's what we do now --
6 an opportunity for anyone to ask questions that
7 illuminate a point of confusion from a technical
8 standpoint, not maybe new debate --

9 MS. BALDWIN: Right.

10 MR. EWING: -- in your -- to follow your
11 order. But if there's something, let's address it now.

12 MS. BALDWIN: I think that that probably
13 makes the most sense. Let's start with the people on
14 the phone and then we'll move to the people that are
15 actually at the table.

16 So, Julie, are there any questions that
17 you have of Cheniere's representatives from a technical
18 standpoint on any of the presentations that we have --

19 MS. HALLIDAY: Yeah. I've just got one
20 question, and that's -- we talked about the [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

25 MR. EWING: Let me understand your

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1 question, Julie. This is Kevin. I will try to field
2 it. You're asking the hypothetical, which is also a
3 counterfactual, [REDACTED] when?

4 MS. HALLIDAY: If there was -- [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

8 MR. EWING: And the timing of that is
9 when?

10 MS. HALLIDAY: [REDACTED]
[REDACTED]

12 MR. EWING: Well, we'll just assume a
13 timeframe then. Paul?

14 MR. SULLIVAN: Okay. Very briefly, Julie,
15 there's [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

19 What's in there -- and I'm not going to go
20 through it in detail because --

21 MR. EWING: Can we flip it up so we can
22 see that?

23 MS. BALDWIN: Yes.

24 MR. SULLIVAN: Oh, yeah, we can put the --
25 we can put it up there. But basically it has to do with

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1 [REDACTED] You know, [REDACTED] is --

2 MR. EWING: Page 17. Forgive me.

3 MR. SULLIVAN: [REDACTED] is, Julie, that

4 [REDACTED]

5 [REDACTED]

6 [REDACTED]

7 [REDACTED]

8 [REDACTED]

9 [REDACTED]

10 [REDACTED] We did a lot of them at BG

11 available -- they were done a few years ago. I haven't

12 got a copy now.

13 [REDACTED]

14 [REDACTED]

15 [REDACTED]

16 [REDACTED]

17 [REDACTED]

18 [REDACTED]

19 [REDACTED]

20 [REDACTED]

21 [REDACTED]

22 [REDACTED]

23 [REDACTED]

24 [REDACTED]

25 [REDACTED].

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1

In fact, the other [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

10

So they -- what they -- [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

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1 something like that, whatever it would be.

2 The [REDACTED]

3 [REDACTED]

4 [REDACTED]

5 [REDACTED] So that is -- that is the situation. Julie, I hope
6 that answers the question.

7 MR. HINZ: Can I just --

8 MS. HALLIDAY: So if there's a person
9 working in the dike and it catches fire --

10 MR. SULLIVAN: Yes.

11 MS. HALLIDAY: -- would you say that if
12 they're inside this fire that that's an imminent hazard
13 to them?

14 MR. SULLIVAN: Well, if they're inside the
15 fire, it would be. But the point about this is they
16 would be kept away that distance from the possible
17 source.

18 MR. HINZ: So can I just -- can I just
19 add -- we just had, I think, a misstatement. [REDACTED]

20 [REDACTED]

21 Also --

22 MR. SULLIVAN: Oh, I didn't realize that.

23 MR. HINZ: So what you're seeing is the

24 [REDACTED]

25 [REDACTED] That was

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1 the -- that was [REDACTED]
[REDACTED]
[REDACTED].

4 MR. EWING: And, Maas, [REDACTED]
[REDACTED]?

6 MR. HINZ: Yes.

7 MR. EWING: If it happened, [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

11 MR. HINZ: So [REDACTED]
[REDACTED]

13 MR. EWING: Yeah, correct.

14 MR. HINZ: So [REDACTED]
[REDACTED]
[REDACTED]

17 MR. EWING: The [REDACTED]
[REDACTED] which I think is the point.

19 MR. HINZ: Yes. So --

20 MR. EWING: Thank you, both.

21 MR. PHILLIPS: Just to be clear -- I'm
22 sorry. [REDACTED]

[REDACTED]?

24 MR. HINZ: Yes, it is.

25 MR. PHILLIPS: So this is based on the --

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1 MR. HINZ: Yes, this is -- that's correct.

2 MR. PHILLIPS: -- [REDACTED]?

3 MR. HINZ: Yes, that's correct.

4 MR. PHILLIPS: Okay.

5 MR. HINZ: It's actually -- it's -- the
6 [REDACTED].

7 MR. PHILLIPS: Gotcha. Okay. Thank you.

8 MR. EWING: So we obviously can't do that
9 in the public. When the -- when the public stepped out,
10 we had just heard from the -- from PHMSA their [REDACTED]
11 [REDACTED] We
12 did not have an opportunity to address that.

13 It is very important to us, when they come
14 back in, to be allowed -- not in the detail and with
15 this information, but to summarize that, summarize what
16 you have just heard. I would like the opportunity to do
17 that so that they don't fail to have our perspective on
18 that.

19 Can I do that, please?

20 MS. BALDWIN: I think that that makes
21 sense.

22 So is there any other question on the --
23 on any aspects of the presentation from OPS?

24 MS. HALLIDAY: No. I just think that, you
25 know, they made the point that there is the potential

1

2

3

I mean, there's

4

5

6

7

We've seen --

8

we've seen that happen.

9

MR. EWING: We, of course,

10

which we did not talk about

11

earlier because it seemed fairly straightforward

12

13

14

In addition, with the absence of

15

flammability, you know, an ignition source is not

16

sufficient without the correct concentration of gas to

17

cause the fire. All these are important to understand.

18

I think we've probably established sufficiently, for the

19

quick time that we have, our view on that.

20

MS. BALDWIN: Uh-huh.

21

MR. EWING: May I, when they come back

22

in --

23

MS. HALLIDAY: I have no more questions.

24

MS. BALDWIN: Okay. So OPS has no more

25

questions. Is that right?

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1 MR. EWING: Thank you, Julie.

2 MS. BALDWIN: Do you have any other
3 testimony from anybody else in the room that requires
4 this document?

5 MR. EWING: No. Can we flip it, please,
6 to the generic Cheniere page or something other than
7 that?

8 MS. BALDWIN: I can take it off as well.

9 MR. EWING: That's fine.

10 MS. BALDWIN: So we're just going to go
11 off the record until the member of the press rejoins us.

12 (Recess from 4:18 p.m. to 4:22 p.m.)

13 (Open to public)

14 MS. BALDWIN: Okay. Let's go back on.

15 So there has been much meeting and I would
16 like to in particular ask if both parties address
17 themselves to the CAO standard. So I would like to not
18 only from OPS hear how that threshold was met as of the
19 date of the issuance of the CAO but to address
20 themselves to the conditions as they present themselves
21 today.

22 And I'd ask the same thing for Cheniere.
23 I would like a very targeted argument that's sort of
24 tied in with the facts as well as the standards that are
25 articulated in the CAO.

1 I know I've sort of -- well, let's turn to
2 Cheniere first because, again, that was part of their
3 presentation, and then we'll turn to OPS.

4 MR. PHILLIPS: Sure.

5 MS. BALDWIN: And, I mean, I will say
6 there's been some information that's -- that was
7 presented here that the Region has not had an
8 opportunity to fully go through or that -- to that end,
9 but we'll talk about this later.

10 There -- we can have a post-hearing
11 submission by either party to wrap up those loose ends,
12 though our -- we have a very tight turnaround. So I'm
13 just putting that out there so we can start thinking
14 about what that is going to look like.

15 But I'll turn back to Cheniere so that we
16 can sort of discuss the CAO standard.

17 MR. EWING: As we've talked about really
18 throughout the day and certainly in the morning -- and
19 I'm standing just to project a little bit better into
20 the microphone.

21 The standard for this particular CAO is
22 really two different determinations, but they can
23 essentially be combined. They reflect an imminence --
24 an imminence and a likelihood of serious harm to life,
25 property or the environment.

1 And our concern and the reason why we're
2 here is that whatever view one might take of the facts,
3 it does not include that standard. And we know this for
4 several reasons. We knew this early on in discussions
5 also with the agency before the issuance of the CAO. We
6 know it now, getting to the point of temporal, what we
7 know and what we can say. There are a number of reasons
8 for it.

9 I'll start with something fundamental
10 because earlier in the day there was discussion about
11 the possibility or the hypothesis and concern about a
12 large pool fire with catastrophic consequences. And
13 this really is why we're here, because that is not
14 factually accurate. And I want to be sure that we leave
15 here with a clear understanding of that.

16 There are specific reasons why we come to
17 that conclusion readily and with confidence, and you've
18 heard many of them with some detail earlier today, based
19 on very detailed information. But what you have seen
20 there is several things.

21 First, the configuration and the design
22 philosophy of the facility, which is to international
23 standards, to U.S. Code and to the legal requirements,
24 includes an extensive analysis of the potential and the
25 potential consequences of such an event and how it might

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1 arise.

2 And we would not be allowed to construct
3 or operate if the zones of vapor dispersion or the
4 thermal consequence of ignition to that were to extend
5 beyond the boundaries of the property. They do not.
6 That alone does not mean that there cannot be risk, but
7 what it does mean is that this imminence and the
8 severity, much less a likelihood in this harm to public
9 safety is not in evidence.

10 The second thing that factors into that
11 very, very importantly is the nature, scope and scale of
12 the event that actually transpired on the 22nd of
13 January and how much we know about it. In particular,
14 for example, the scale of the release was fully
15 contained in the secondary containment area, which is
16 its purpose. That is its design. That is part of the
17 design philosophy of a single containment tank.

18 So if there is to be a release, as there
19 was on the 22nd, actually a design function well within
20 its design parameters and therefore also within the
21 hazard analysis that was required at the outset under
22 the exclusion zone analysis. What that means translated
23 is the scale of this release from the outer tank or
24 through the outer tank did not come close to presenting
25 a factual basis for a concern for some kind of pool fire

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1 or conflagration or catastrophic loss.

2 Similarly we know, and we knew that
3 imminently after the 22nd, that the inventory level in
4 the tanks was being drawn down purposefully. It's a
5 prudent measure. They were not full to begin with.
6 They were half or less, and they were drawn down
7 according to appropriate safety protocols in a linear
8 fashion, straight down tank. 3 was drawn down within a
9 very short period of time. You have the specifics on
10 that. And therefore the LNG that is in the tank at the
11 end of that drawn down period is a very small fraction
12 of the contents against which a worst case scenario was
13 modeled.

14 These are facts, and these facts help us
15 understand and gauge the level of threat or absence of
16 level of threat that we're talking about. So I wanted
17 to be very clear about that.

18 We also have facts relating to our
19 understanding of the mechanism, the mode by which a
20 thermal event transpired, what caused it. Was it the
21 result of structural issues or was it the result of an
22 operating issue or a process issue? The distinction is
23 one we have evaluated closely with you today and
24 obviously for weeks previously.

25 The upside of that conversation -- or an

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1 analysis, rather, is that it is not structural and the
2 mode that actually generates that event is operational.
3 We described it in some detail, resolving, in fine
4 detail, I think, the mechanism of action.

5 That's important to understand, not -- for
6 a specific reason, and that is that we can see that if
7 it is operationally defined, it is also operationally
8 controlled. So the mech -- understanding the mode that
9 drives the event also allows us to comprehend early on,
10 before the CAO was even issued, but certainly also now,
11 what is the direction of the controls that can be placed
12 to prevent that operational mode of failure? That is a
13 further fact that contributes to our understanding and
14 calibration of whether there is a threat remotely
15 similar to the threshold that is legally required.

16 What I'd add -- a couple of more points.
17 It's important that we note when there is an issue with
18 any facility regulated by PHMSA or for that matter any
19 other safety agency, but particularly here with PHMSA
20 and with LNG facilities, there are a number of different
21 tools available. They're always within reach. They
22 have different purposes, but they also have overlapping
23 purposes.

24 To say that this CAO was improvidently,
25 incorrectly issued on the basis of a misunderstanding of

1 the threat level is not to say that no action by PHMSA
2 is merited, no oversight by PHMSA is merited, no
3 remedial measures or diagnostics and analytics and
4 conversation is merited. All of that is merited. All
5 that is possible through a number of different
6 instruments that allow PHMSA to be in control and -- of
7 that conversation and dialogue so it is fact based.

8 What is distinctive about the no action --
9 excuse me, the no notice CAO, however, is that all of
10 that control comes coupled with the finding of imminent
11 and very substantial endangerment, and that is
12 principally our objection. That is not factually
13 founded in our view at all, and we're concerned about
14 that aspect of it. We think it is a mischaracterization
15 of the condition then and now.

16 A few more points that I think are
17 relevant to your question. The CAO treats two tanks
18 similarly and specifically with respect to the
19 corrective actions that are called for for each. Since
20 this was a no notice CAO, there was not an opportunity
21 to fully explore with you why that would be
22 inappropriate. So we do so now, and I have done so.

23 Tanks -- the remedial actions or
24 corrective actions that are appropriate to any piece of
25 equipment -- in this case Tank 1 and Tank 3 -- should be

1 defined by the threat and the mode that generates that
2 threat, the hazard fundamentally that is presented by
3 the two. And that is driven by the condition of the two
4 tanks. The condition of the two tanks is fundamentally
5 different. While there are some similarities, they are
6 different. We've explored the reasons why that's the
7 case.

8 And our concern there is that the
9 treatment of both tanks as similar disregards a very
10 important difference in their actual condition. This is
11 not academic for us because condition informs hazard.
12 And to misunderstand condition is to misunderstand
13 hazard, and we want that rectified.

14 Finally, we're concerned with the basis
15 that has been articulated in the CAO for the imminence
16 and the seriousness of threat, which, as I said, we do
17 not see supported by the evidence. There are several.

18 I'll briefly enumerate them, and I will
19 not take long to do so. But the fundamental on each is
20 that it is either erroneous -- and I'll identify them --
21 or it is simply not founded and explained in any way in
22 the record. And so we come to this as an established
23 basis for the determination of threat but have no basis
24 for understanding in the record how it was arrived at or
25 what the mechanism would be to support it. And this is

1 inadequate.

2 First, the presence of approximately
3 500 Sabine employees and contractors on site. We
4 mustered. We did a head count. We know precisely how
5 many. We've communicated that for weeks. For whatever
6 reason, it is misunderstood or remains in the CAO. That
7 is not the number of people who were on the facility.
8 It is important to us.

9 The reason it's important and not just a
10 detail is that we count the people who come on and we're
11 responsible for their lives. And so how many there are
12 and our ability to track them and confirm that they are
13 all present -- not 106, not 108, but that they're all
14 present -- is extremely important to us. So that is not
15 a numerical detail. I hope and trust PHMSA feels
16 likewise.

17 Second, the potential disruption to major
18 transportation, waterways, highways. This statement
19 literally comes without any anchoring in the record.
20 There is a waterway there. There is a highway a ways
21 away to the north basically. You can see it on a map.
22 Yes. But by what plausible mechanism would that --
23 would a threat from these facts or even more egregious
24 facts extend to that waterway or to that highway,
25 especially at the level of likelihood and serious harm?

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1 It baffles us. We have a number of things
2 to inform us about that and to inform the agency about
3 that. Perhaps the most important or trenchant is that
4 under Coast Guard, FERC and PHMSA regulation, industry
5 standards and codes, our facility is designed so that
6 even if there were a catastrophic release, which did not
7 happen, and is not capable of happening now -- we do not
8 have full tanks.

9 Even if that were to happen, the exclusion
10 zone analysis establishes that there is not a threat
11 that extends beyond the facility, therefore not into the
12 waterway and therefore not into the highway. This is
13 very important to us. We look at that second finding
14 and we find no fact in it.

15 Third, the hazardous nature of the
16 product. We recognize that hydrocarbons, particularly
17 vaporous hydrocarbons, are potentially flammable. In a
18 confined space, which is not the case here, they can
19 have other characteristics of risk and harm. But to
20 observe that a facility carries a hazardous product or a
21 hazardous material is not a finding of threat.

22 A pipeline grid carries natural gas right
23 now. That is not a basis for shutting in or making --
24 issuing CAO's to the owners and operators of those
25 facilities. We don't know what's being driven out there

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1 other than the most, at a gross level -- I don't mean
2 gross in a colloquial way, but in a very basic level to
3 observe there are hazards on site -- well, there are
4 potential hazards on site because of the nature of the
5 material. But that does not lead to a fact-based
6 conclusion that here there's an imminent serious threat.
7 That's absent.

8 Unpredictability of brittle failures and
9 ignition sources. These are two different things, but
10 they were combined in that particular sentence. That's
11 a quote. We have talked about brittle failure. We've
12 talked about the metallurgy of that. We've talked about
13 why there can be confidence that structure is not the
14 driver for the event that occurred. This is important
15 for the reasons I mentioned earlier. It is a
16 process-driven failure mode. It is not a structural
17 failure mode. This tells us much about potential scope,
18 a risk that may or may not exist.

19 With respect to ignition sources, we
20 remind everyone that ignition sources in the containment
21 area are forbidden. And the nature of the release, its
22 scale and scope, was very small compared to the capacity
23 of that containment they're in, very small. It is
24 appropriately locked off to limit access while work
25 continues. That is not a basis for a public safety

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1 threat finding.

2 As to the uncertainties as to the cause of
3 the event, I think we've explored in some detail our
4 understanding, going back to work that was done a few
5 years ago even, what the failure mode is and how it is
6 constituted and it gives us the confidence in explaining
7 all the phenomena that we have observed to date. So the
8 event on the 22nd does not challenge or undermine that
9 understanding that was reached even a few years ago
10 about a potential action that can happen in certain
11 operational scenarios that we control.

12 And, finally, with respect to the fact
13 that there are ongoing investigations, that that should
14 be a basis for issuing a threat finding, is difficult to
15 understand. Of course there's an investigation, which
16 means an exploration. It means a joint and
17 collaborative, very important, hopefully over time very
18 trusting and respectful, as it has been, engagement to
19 understand what happened, why and what are the
20 appropriate measures. That there is an investigation is
21 not a basis for finding a threat.

22 So we are concerned that these seven
23 expressly enumerated reasons for the finding are really
24 insufficient to meet that standard.

25 I end with a simple thought, which I have

1 expressed before, but it's important to restate. Your
2 goals, as expressed by PHMSA earlier today, and ours
3 coincide. It is always to have and get toward greater
4 and greater safety. There is no doubt about that in
5 PHMSA's mind about us, I believe, as has been expressed,
6 nor is there any doubt about our understanding that that
7 is your objective.

8 Where we have parted here is not that
9 there needs to be dialogue, there needs to be an
10 understanding of analytics, there needs to be an
11 understanding of what is an acceptable repair or not.
12 All of that can be worked out. A measure of control and
13 direction can even be put in place. All that can be
14 accomplished without an unfounded finding of public
15 threat. And that's why we've come.

16 So I appreciate the time that you've taken
17 to listen to us and the engagement from everyone here on
18 PHMSA's side to explore these issues. We look forward
19 to continuing to do so.

20 MS. BALDWIN: Okay.

21 MR. EWING: Thank you.

22 MS. BALDWIN: Adam?

23 MR. PHILLIPS: Thank you all, again, and
24 thank you, Ms. Baldwin, for the hearing.

25 I just wanted to reiterate a few things.

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1 I won't go -- won't go deeply down the rabbit hole again
2 on too much. So I just wanted to quote, again, from
3 sort of our activating language out of the regulation
4 when PHMSA promulgated the final rule on the specific
5 regulations that related to LNG, so from 193 of our
6 regulations. And I would -- again, this is just in the
7 summary part. And these are activating words for us
8 because obviously we live in and move by legal
9 standards. So you know you're not dealing with Adam's
10 standards. You're dealing with PHMSA's standards.

11 "Because of the grave consequences that
12 could result from a major accident at a facility,
13 present regulations are considered inadequate." That
14 was part of why PHMSA essentially stated to the world --
15 really to the country and to the world, why we were
16 doing something specific about LNG.

17 Now, this is 1980. I'm not -- I'm not
18 trying to imply that there was a major accident. That's
19 not what I'm saying. What I'm saying is that LNG is
20 different, and you all know that. You all know that
21 better than anybody. This is a specific kind of -- a
22 specific kind of material, and it means obviously you
23 all specialize in LNG. So I assume you don't do other
24 things because obviously it's a particular kind of --
25 it's a particular kind of product. So that means, you

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1 know, when a situation like this comes to us, we also
2 face it with that in mind.

3 So we're dealing with a very particular
4 kind of product, which when it comes to the specific
5 kind of facility that Sabine Pass is it may be a
6 unicorn. We're not talking -- there aren't other
7 facilities all over the place dotting the landscape that
8 are -- that are the same.

9 So for everybody, when we were dealing
10 with this circumstance, we understood, you know, that
11 you all had a lot of history with this issue that, you
12 know, came up on January the 22nd. And for us, that's
13 great. We never want to know more than the people
14 operating their own facilities. We want to know a lot,
15 but we don't want to know more than you because
16 obviously you live with your facility every day.

17 But when we came on this situation, what
18 we saw concerned us. So, you know, again, we've been
19 talking about the CAO standard back and forth. You
20 know, you all have used the word "threat." What we have
21 to show here is that there is or would be a hazard to
22 life, property or the environment. I don't think
23 there's any question here, whether the number be one or
24 whether the number be a thousand and one, that there is
25 a hazard, potentially at least, to the lives that were

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1 on the site. Nobody, I don't think, is questioning
2 that, I'm pretty sure. Any kind of facility where there
3 would be a flammable liquid and -- a flammable product
4 can create -- potentially create a hazard.

5 And, again, I'm not lowering the standard
6 for the sake of just sort of meeting a threshold. But
7 we walk on -- we walk on a unicorn site that's dealing
8 with a particular kind of product that's had a release,
9 where I don't think in the history -- since 1948, there
10 hasn't been a reported release essentially of LNG from
11 containment. That's unique.

12 We're all dealing with -- we're all
13 dealing with a unique environment. So that is a hazard
14 to life, property and the environment, including --
15 okay. The standard that we also have to meet for the
16 CAO, doing it without notice, is that there was a
17 likelihood of serious harm. Now, that's also
18 something -- when we walk on site and we recognize not
19 only do we have a lack of containment, which is
20 something unique, and even the history really of how the
21 country has dealt with or has experienced LNG, but we
22 also have potential -- three potential tanks, which,
23 again, by testimony we've seen today from you all, not
24 from us, that were designed similarly and manufactured
25 similarly that might potentially have design issues that

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1 are consistent. That, again, seems like -- when we
2 walked on site in context, that seemed to us to be a
3 consistent hazard that we needed to address.

4 So, again, you all knew a lot more about
5 this. And you all have had -- you all have had
6 experience with this that is years long, which is great,
7 and that's good, you know, for us to know. We came on
8 the scene on January the 22nd and ended up over time
9 finding out more and more and more and more. A part of
10 the concern that goes into this CAO and that goes into
11 the -- really the difference between January the 22d and
12 February the 8th, which is issuance of the CAO, is we
13 were consistently not having our concerns assuaged.

14 We wanted to make sure that safety was in
15 place, the hazards were mitigated, there was less threat
16 to -- harm -- less threat of harm to life, property and
17 the environment, and we consistently weren't getting
18 the -- we weren't -- we weren't finding the partnership
19 in safety that we wanted to make sure we had for this
20 specific incident.

21 That's not to cast a dispersion on Sabine
22 Pass or Cheniere. We consistently have had a -- and I
23 think continue to have good relationships. But in this
24 circumstance, dealing with a very unique release, we
25 were struggling to get to the point of feeling

1 comfortable that there was -- there was enough
2 cooperation amongst the two parties to have the -- to be
3 assured that we were all moving towards safety.

4 So, you know, we've talked a little bit
5 about the determination conditions. I won't repeat them
6 because y'all don't want to hear me talk anymore
7 probably. But Tanks 1 through 3 were designed and
8 manufactured by the same -- by the same folks, designed
9 and manufactured being different, but Tanks 1 through 3
10 were consistent. Again, your own testimony talked about
11 the potential for this being a design problem, which
12 would be consistent then theoretically for each of the
13 three.

14 The conditions on -- the conditions that
15 we were concerned about would not change appreciably
16 Tanks 1 through 3. So we walked into obviously a
17 specific hazard dealing with Tank 3, but then the
18 concern began to grow that this might be a larger
19 problem than we thought. So obviously that sort of
20 explains not only part of why we considered this CAO
21 worthy but why we included Tanks 1 and 3 within the
22 design -- or within the CAO.

23 You all talked about the number of people
24 on site. I wanted to address sort of a factual issue.
25 I know Kevin -- I appreciate that you all want to know

1 exactly how many people were on site. That is so good
2 for us to know and for us to hear. We want to know
3 those things, too. Like I said initially, CAO's are
4 preliminary. They are -- they are extensions of
5 ourselves. We don't expect that our findings are final.
6 We expect that we will find out exactly how many people
7 were on site, and we gladly fixed those things. So that
8 is never a problem for us.

9 Safety is Job One. So for us, if we are
10 concerned about safety, we're going to step out. We'll
11 take that risk of being wrong on the numbers, no
12 problem, and then we'll fix those things. I hope that
13 you know that from us. I hope that you know that and I
14 hope we continue to demonstrate that to you.

15 So in terms of our -- you know, ultimately
16 PHMSA doesn't jump out on these things. We don't jump
17 out on CAO's without having a concern and a consistent
18 concern. And the consistent concern here ultimately was
19 that without corrective actions, without really an
20 intervention on PHMSA's part, we weren't going to get to
21 the safety partnership that we really needed to assure
22 ourselves and really to do our duty, which is our duty
23 to safety as the regulator. So that's what we see.

24 MS. BALDWIN: Well, can you address
25 yourself to the situation as it stands today, or does

1 there continue to be a serious likelihood of imminent
2 harm?

3 MR. PHILLIPS: Yes. And here's part of
4 the reason why. I say yes as the -- as the
5 non-technical expert, but -- because my technical
6 experts are finding out today some things that are
7 completely fresh. So whether -- like the fact that we
8 will have this conversation is great. The fact that we
9 found these things out today is great. I'm glad to hear
10 them. But we need time to -- we need to be assured of
11 what it seems like Sabine Pass already knows and
12 Cheniere already knows. That's great. Let's have that
13 conversation. But as of today, yes, nothing has
14 appreciably changed.

15 MR. EWING: Ma'am, forgive me. May I
16 clarify something that I believe was your intention but
17 might be misunderstood?

18 Adam --

19 MR. PHILLIPS: Sure.

20 MR. EWING: -- when you say you learned
21 things that are fresh --

22 MR. PHILLIPS: Yeah.

23 MR. EWING: -- I think it's fair to say --
24 please confirm -- that you didn't learn fresh of new and
25 different bases for concern or incidents occurring?

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1 MR. PHILLIPS: Absolutely not.

2 MR. EWING: You learned more
3 information --

4 MR. PHILLIPS: Absolutely not.

5 MR. EWING: -- and perspective --

6 MR. PHILLIPS: Yes.

7 MR. EWING: -- and expert testimony and
8 other information that illuminated the existing issues.

9 MR. PHILLIPS: Yes.

10 MR. EWING: Is that correct?

11 MR. PHILLIPS: Thank you for clarifying.

12 There has been -- we didn't learn anything today that
13 has anything to do with new incidents, new concerns on
14 our part for determinations of necessity for any new
15 CAO's, nothing like that.

16 What we did learn today and what we did
17 get for the first time today was a number of new -- or a
18 number of new chances to sort of look at the data that
19 you all have been looking at for a few years, and that
20 is great. That has nothing to do with new incidents,
21 nothing like that, absolutely.

22 MR. EWING: Thank you.

23 MR. PHILLIPS: Thank you for giving me
24 that opportunity.

25 MS. BALDWIN: Julie, anything?

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1 MS. HALLIDAY: No. I'm good. Thank you.

2 MS. BALDWIN: Is there anything else,
3 Mr. Ewing, you'd like to present?

4 MR. EWING: Nothing other than our thanks.
5 I really appreciate very much your engagement, your
6 questions very sincerely, and also that of all the folks
7 at PHMSA. This has been a respectful, very effective
8 way of talking about issues that are important to all of
9 us.

10 So with real sincerity, thank you all for
11 that, and I hope you feel likewise.

12 MS. DAUGHERTY: OPS, you had mentioned you
13 wanted to discuss something before the end?

14 MR. EWING: I believe I addressed it right
15 at the outset of my remarks.

16 MS. DAUGHERTY: Okay. Good.

17 MR. EWING: Thank you.

18 MS. DAUGHERTY: Just wanted to make sure
19 we didn't skip over it.

20 MR. EWING: I appreciate that. I
21 appreciate that very much.

22 MS. BALDWIN: So let's discuss
23 post-hearing submissions. I assume that Cheniere would
24 like the opportunity to submit a post-hearing brief in
25 this matter?

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1 MR. EWING: It seemed to me, coming out of
2 our dialogue today, I mentioned at least one summary of
3 information that you all might find helpful so we'd like
4 to prepare that. I believe it may already be prepared
5 by now because we worked on it. We would like to be
6 able to submit that. I don't think it's a tremendously
7 complex document, but that would be informative.

8 Beyond that, I think we would be guided by
9 the questions that you have after you come back to
10 wherever you would come back and these comments and this
11 information settles in your mind. If you have
12 questions, I understand the timeline you're on. If you
13 have questions, if you need clarification of something,
14 I have no doubt and certainly would like to encourage
15 you to reach out to the parties so that they can offer
16 proper assistance.

17 MS. BALDWIN: So OPS, you mentioned you
18 need some time to review some on the information that we
19 have, the --

20 MR. PHILLIPS: Well, that's -- yeah.
21 That's sort of -- for us, there might be two issues
22 here, and maybe the first issue being sort of whether or
23 not what we did on February the 8th was okay. I think
24 that's kind of the threshold issue, you know, we want to
25 deal with. And if you want to hear more from us on

1 that, we're glad to, you know, provide it.

2 In terms of the details of I think what
3 we've heard from Cheniere today, which has been very
4 helpful sort of post February the 8th, yeah, I mean,
5 certainly we're going to have that conversation. That's
6 always going to be ongoing.

7 In terms of putting a time limit on that,
8 I don't know -- that feels a little artificial to me
9 because there might be -- you know, these are long-term
10 issues. I don't know that we want to or could really
11 even agree to a timeframe on saying how long can we look
12 at, you know, what we've seen today.

13 MS. BALDWIN: Well, of necessity by
14 regulation, I have to issue a decision within five
15 business days.

16 MR. PHILLIPS: Right.

17 MS. BALDWIN: So what I will do is give
18 OPS until the end of the week.

19 MR. PHILLIPS: Okay.

20 MS. BALDWIN: That's Friday. We're not
21 talking about -- it's not a voluminous amount of
22 information.

23 MR. PHILLIPS: Sure.

24 MS. BALDWIN: So I will give OPS until
25 Friday at the close of business if they wish to submit a

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1 post-hearing submission to augment the arguments that
2 they --

3 MR. PHILLIPS: Okay. That's fair.

4 MS. BALDWIN: I will say to both parties
5 it will be limited to the discussion that we had at this
6 table today. No new arguments will be set forth. But I
7 will again reemphasize not only am I looking at what the
8 circumstances were at the time of the incident, I am
9 also looking towards whether or not there is a continued
10 necessity for a corrective action order to remain in
11 effect.

12 MR. PHILLIPS: Okay.

13 MS. BALDWIN: So I ask that you address
14 those concerns.

15 MR. EWING: Ms. Baldwin --

16 MS. BALDWIN: Yes.

17 MR. EWING: -- for point of
18 clarification --

19 MS. BALDWIN: Yes.

20 MR. EWING: -- do you mean to say that
21 you're inviting post-hearing briefs to cover the same
22 terrain? Or -- I mean, there was one specific item that
23 we had identified that we would like to submit that I
24 think is responsive to you. So I want to distinguish
25 that from your saying, "Okay. Now rehash or

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1 resummarize." It would seem to me that we've covered
2 this ground.

3 MS. BALDWIN: Sure. So this is sort of
4 a --

5 MR. EWING: And I want to be clear on what
6 you mean.

7 MS. BALDWIN: Sure. This is sort of a
8 natural consequence of me liberally allowing the
9 submission of documents. So in a normal circumstance,
10 everyone would have had all of the information at the
11 time of the hearing, and therefore I would not be
12 inclined after the hearing to ask for the parties to
13 reflect on that information.

14 But what I am saying is in this particular
15 context, because I liberally allowed the submission of
16 documents, that I will allow OPS an opportunity, at the
17 very least, to review those documents as opposed to just
18 viewing them on the fly.

19 MR. EWING: Understood.

20 MS. BALDWIN: And so that is, you know,
21 very different than saying that they may come forward
22 with new arguments.

23 MR. PHILLIPS: No. We'll commit to that.

24 MS. BALDWIN: Yeah. It is -- it is still
25 an opportunity for them to have further reflection on

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1 the materials that were submitted today.

2 MR. EWING: Thank you.

3 MS. BALDWIN: That being said, I am -- I
4 will allow Sabine Pass, if they so choose, to submit any
5 document -- not rehashing, again, arguments that were
6 already made. But if you would like a similar
7 opportunity, I will allow that until the close of
8 business on Friday as well.

9 MR. EWING: We appreciate that. We'll
10 reflect on whether there's something that was learned
11 today --

12 MS. BALDWIN: Yes.

13 MR. EWING: -- that we feel would be
14 helpful to you and -- to you for us to summarize
15 briefly. We're not going to explore larger themes.

16 MS. BALDWIN: I do appreciate that because
17 I will not --

18 MR. EWING: I understand.

19 MS. BALDWIN: -- allow a back and forth --

20 MR. EWING: Right.

21 MS. BALDWIN: -- on these issues. I
22 simply don't have the time in which to do that. So I
23 ask, again, for brevity and just really succinctly. But
24 I think it is fair to allow OPS to have the opportunity
25 to review.

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1 MR. EWING: We agree. And, as you know,
2 we suggested a different timetable that would be more
3 commodious for everyone to review --

4 MS. BALDWIN: Appreciate it.

5 MR. EWING: -- which was declined. I will
6 reserve one privilege, which isn't mine to have but may
7 need ask for, and that is if and when you offer your
8 reflections -- you may not but you may -- it clearly be
9 submitted simultaneously to us so that we may look at
10 them, recognizing that otherwise it's an ex parte
11 communication. Right? We need to see --

12 MR. PHILLIPS: Right.

13 MR. EWING: Are you doubting that?

14 MS. BALDWIN: We would share it.

15 MR. PHILLIPS: Yeah. We would typically
16 simultaneously send to both. I mean, that's --

17 MR. EWING: Yeah.

18 MR. PHILLIPS: -- how we do it.

19 MR. EWING: Yeah. I just saw the --

20 MS. BALDWIN: No.

21 MR. EWING: -- doubt on your face and I
22 thought --

23 MR. PHILLIPS: Yeah.

24 MR. EWING: -- oh, boy.

25 MS. BALDWIN: I --

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1 MR. EWING: Okay.

2 MS. BALDWIN: Every party must be included
3 in any --

4 MR. EWING: Yes. Thank you.

5 MS. BALDWIN: -- post-hearing
6 submission --

7 MR. EWING: Thank you very much.

8 MS. BALDWIN: -- just to be clear.

9 MR. EWING: And the request is simply if
10 for some reason -- which I don't anticipate, but if for
11 some reason we feel that there's a fundamental
12 misunderstanding of something in the summarized
13 material, which can happen if you are left to -- if
14 anyone is left to their own devices looking at something
15 that was abbreviated. We will not immediately submit
16 something, but we will, if we may, flag it to you,
17 identify what that concern is and ask permission to
18 alleviate that misunderstanding. That would be what I
19 would suggest as a way to avoid --

20 MR. PHILLIPS: And this is a --

21 MR. EWING: -- responsive filings --

22 MR. PHILLIPS: Yeah.

23 MR. EWING: -- but also avoid just plain
24 error in understanding what we have provided.

25 MR. PHILLIPS: It's a little bit, you

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1 know -- I mean, as you know, it's a little bit of a
2 pitfall, right, because if you all are summarizing what
3 you said here and then we hear something new, you know,
4 we get into the same back and forth. So it's difficult.
5 We'll commit to not putting in anything that's new and
6 addressing only what we've heard today. We'll base it
7 on the slides. You know, we'll make sure that, you
8 know, we get you only things that are responsive.

9 MS. BALDWIN: Because, again, I want -- I
10 want to be clear what I'm asking OPS for.

11 MR. PHILLIPS: Right.

12 MS. BALDWIN: I am asking them to offer
13 any response to the materials that they have not had --
14 that they have not yet had at the hearing.

15 MR. EWING: And I understand.

16 MS. BALDWIN: Okay.

17 MR. EWING: I understand.

18 MS. BALDWIN: That's --

19 MR. EWING: And that's perfectly sensible.
20 My request is only --

21 MS. BALDWIN: You probably won't agree
22 with whatever it is they have to say. So I'm going to
23 take that as a given, how --

24 MR. EWING: Well, I don't know that that's
25 the case, ma'am, but --

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1 MS. BALDWIN: Well --

2 MR. EWING: -- my point is --

3 MS. BALDWIN: -- I haven't seen it yet,
4 but we'll -- I think that we -- I think we're all on the
5 same page. I mean, I anticipate a certain amount of
6 redundancy, but at the same time we are under a time --
7 a time crunch here and --

8 MR. EWING: Yeah.

9 MS. BALDWIN: -- so for that reason I do
10 have to cut it off at the close of business on -- and
11 I'll make that 5:00 p.m. Eastern Standard Time on
12 Friday.

13 MR. EWING: Eastern Daylight or --

14 MS. BALDWIN: Eastern Daylight Time.

15 MR. WELLER: And this process --

16 MS. BALDWIN: That's right, EDT, not EST.

17 MR. WELLER: -- doesn't need to be in a
18 bubble either.

19 MS. BALDWIN: EDT.

20 MR. WELLER: This process doesn't need to
21 be in a bubble either. If there's a clarifications, you
22 guys can --

23 MR. PHILLIPS: Oh, right.

24 MS. BALDWIN: And that is absolutely true.

25 MR. WELLER: That's just so --

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1 MR. PHILLIPS: For sure, yeah.

2 MR. WELLER: I'm stating the obvious
3 but it's --

4 MR. PHILLIPS: No. I'm glad you said it,
5 though.

6 MR. EWING: That's -- we're open to that.
7 We don't want to --

8 MS. BALDWIN: Discussions can continue
9 between the parties.

10 MR. PHILLIPS: You don't want us to call
11 you --

12 MS. BALDWIN: I -- I --

13 MR. PHILLIPS: -- include you in all --

14 MS. BALDWIN: I -- no, but I encourage
15 those discussions to be ongoing. You have an idea of
16 when my decision will issue. I just ask that you keep
17 me updated as to avoid unnecessary work on my part.

18 Is there anything else that the parties
19 would like to discuss before I close the record?

20 MR. EWING: Thank you.

21 MS. BALDWIN: No?

22 MR. PHILLIPS: If you can give me one
23 minute. Sorry.

24 No. We're all set. Thank you.

25 MS. BALDWIN: We're set? Okay.

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1 So we can close, 5:00 p.m. on the dot. I
2 appreciate -- I appreciate everyone's cooperation today.

3 (Proceedings concluded at 5:00 p.m.)
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1 STATE OF TEXAS)

2 COUNTY OF HARRIS)

3
4 REPORTER'S CERTIFICATION TO THE
5 TRANSCRIPT OF CORRECTIVE ACTION ORDER HEARING
6 MARCH 21, 2018

7 I, Diana Ramos, a Certified Shorthand Reporter
8 in and for the State of Texas, do hereby certify that
9 the above and foregoing pages contain a full, true and
10 correct transcription of my shorthand notes taken upon
11 the occasion set forth in the caption hereof, as reduced
12 to writing by me and under my supervision.

13 I further certify that the transcription of my
14 notes truly and correctly reflects the exhibits offered
15 into evidence, if any; that I am neither counsel for nor
16 related to any party in this cause and am not
17 financially interested in the outcome.

18 Certified to by me on this 23rd day of March,
19 2018.

20 

21 _____
22 Diana Ramos, CSR
23 CSR No. 3133, Expires 12-31-2018
24 DepoTexas, Inc.
25 Firm Registration No. 95
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